January 2022

Minecraft: Education Edition - Enriching the Curriculum for Wales

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Introduction to Curriculum for Wales

Welsh Government strongly believe that the new Curriculum for Wales must prepare young people to thrive in a future where digital skills, adaptability and creativity, alongside knowledge are crucial. The four purposes of the curriculum for Wales have been outlined as:

- Ambitious, capable learners
- Healthy, confident individuals
- Enterprising, creative contributors
- Ethical, informed citizens

These are the starting point and aspiration for every child and young person in Wales. Therefore, all schools must develop their curriculum to help learners achieve these four core purposes. The curriculum should be delivered through six **Areas of Learning and Experience (AoLE):**

1. Expressive Arts

Schools must give children and young people chances to explore the arts. And learn how to enjoy and think about other people's art.

Children and young people should also have the chance to be creative. They can learn these things through a mix of different lessons. Like: Art, Dance, Film, Drama, Music and Digital Media.

2. Health and well-being

Schools must teach children and young people how to take care of their health. This includes: Having a healthy body, Having a healthy mind, Having healthy relationships with people, and Making good life decisions.

3. Humanities

Schools must teach children and young people to think about the world to help them understand it better. This can be through subjects like: History, Geography, Religion, values and ethic, Business and Social Studies.

4. Language, Literacy and Communication

Schools must teach children and young people to understand and use different languages. This includes English, Welsh and other languages.

Literacy means speaking, listening, reading and writing skills which help us to make sense of the world around us. Schools must also teach children to understand literature and create their own.

5. Mathematics and Numeracy

Schools must teach children and young people to understand and to use numbers. Using numbers in daily life is called numeracy. Learning about numeracy will include: How numbers work, How symbols can be used and what they mean, How to measure things and work with different shapes, How to collect information – and use this information to make decisions.

6. Science and technology

Schools must teach children and young people to understand nature and living things. Schools should also teach children and young people how technology works and how to use technology to solve problems.

Integrated approach to learning and teaching

The six Areas bring together familiar disciplines and encourage strong and meaningful links across different disciplines. Thus, helping practitioners to develop a more integrated approach to learning. This requires cross-disciplinary planning, learning and teaching, both within and across Areas. This will enable learners to build connections across their learning and combine different experiences, knowledge and skills.

Welsh government have developed a Curriculum for Wales Framework to support practitioners develop their curriculum across the six **AoLE**s and in line with 27 statements of what matters within these.

Cross-curricular skills

The curriculum must also embed the mandatory cross-curricular skills which underpin the four purposes of the curriculum. The cross-curricular skills are **Literacy**, **numeracy** and **digital competence.** To ensure that learners develop high levels of competence in these skills and have frequent opportunities to develop, extend and apply them across all Areas, the Welsh Government have developed a: National Literacy and Numeracy Framework (LNF) and the Digital Competence Framework (DC).

Integral skills

The four purposes are also underpinned by **integral skills** which should be developed within a wide range of learning and teaching. At the heart of these skills is the importance of learners recognising, using and creating different types of value. The **integral skills** are categorised as:

- Creativity and innovation
- Critical thinking and problem-solving
- Personal effectiveness
- Planning and organising

Curriculum for Wales - Brought to Life

This is the product of many years of hard work between Welsh Government, teachers of Wales and international experts and for the first time in Welsh history it is Welsh people deciding what is taught in Welsh schools.

The new Curriculum for Wales has provided the opportunity for teachers to be creative. With all of the building blocks in place, it's time to get to the good bit! All the underlying structure we've looked at so far is there for one main reason – to allow teachers the freedom and space to develop big ideas.

Now is the time for thinking about how this new Curriculum for Wales is going to be implemented within the classroom, how are you going to feel really confident executing it, what ideas, energy and enthusiasm will ensure that this curriculum will come alive!

Building a truly creative curriculum means taking control of the frameworks and designing creative learning opportunities. Having to form units of work from scratch can be a daunting process, and there is a certain amount of bravery required for this too.

Minecraft: Education Edition – unlocking the creativity

Welsh Government has invested in providing every learner in Wales access to Minecraft: Education Edition via the country's Hwb[1] digital learning platform. Just months after this, Hwb initiated their Hwb Minecraft Learning Centres (MLC) across Wales.

Hwb Minecraft Learning Centres are a groups of practitioners from schools across Wales. The practitioners have been chosen by Hwb to support other practitioners with the aim of enriching the Curriculum for Wales by using Minecraft: Education Edition to ignite a passion for creativity, innovation, critical thinking, problem-solving and personal effectiveness through game-based learning. In essence, teachers supporting teachers.

Hwb understands the potential Minecraft: Education Edition has to enrich the new Curriculum for Wales. The malleable game platform allows learners and teachers to create and collaborate as they learn about and/or apply knowledge related to any combination of the **AoLE**s. Its building blocks can be harnessed in many different ways, allowing learners to interact with and understand concepts in an engrossing new format.

To ensure the teachers of Wales have the capability to fully embrace Minecraft: Education Edition, the Hwb Minecraft Learning Centres with their Certified Minecraft Trainers and Minecraft Global Mentors deliver Face2Face and virtual workshops to help develop practitioners' skills and confidence in using Minecraft: Education Edition within the classrooms of Wales.

Furthermore, the Minecraft Learning Centres have co-constructed a range of Schemes of Work (SoW), with accompanying Lesson Plan support, and shorter Challenges to enrich the delivery of the Curriculum for Wales. Although specific **AoLE**s have been identified in each SoW or Challenge these are **not** prescriptive, but the MLC authors interpretation. Educators should interpret the SoW, Lesson support and Challenge documentation and apply accordingly to the relevant age groups in terms of breadth and depth of application (and considering any other relevant AoLEs).

[1] Hwb is the digital platform for learning and teaching in Wales. It is the Welsh Government's strategic digital channel to support the delivery of the curriculum in Wales.

Within the Lesson support documents or Challenge, details of the **Statements of what matters** associated to the relevant **AoLE** are explicitly detailed, along with appropriate referencing of the cross-curricular skills: literacy, numeracy and digital competence. Where appropriate references have also been given to the Digital Competence Framework (**DCF**) and National Literacy and Numeracy Framework (**LNF**).

At the heart of the Hwb Minecraft Learning Centres projects is the development of the four core purposes of Curriculum for Wales and the underpinning integral skills of **Creativity and innovation**, **Critical thinking and problem-solving**, **Personal effectiveness** and **Planning and organising**. Thus, providing a holistic integrated 21st Century curriculum to inspire the youth of Wales to be innovative contributors to their communities by embracing the nation's culture, geography, history, language and sense of belonging.

Schemes of Work (SoW) & Supporting Lesson Plans

For any teacher that might not feel completely ready to develop their own SoW and Lesson Plan from scratch, there is a range of new Curriculum for Wales focused Schemes of Work and supporting Lesson Plans available. As mentioned, these have been co-constructed by the Hwb MLCs, tried and tested in the classroom too.

Each SoW is designed to support a range of **AoLE**s across approx. 6-week time frame (half a school term). The SoW is the overarching map of what a teacher is going to do. This is broken down into Stages and each Stage has its own supporting Lesson Plan document, which breaks the Stage down into Steps – thus providing the detail and granularity.

The approach that has been taken is that Minecraft: Education Edition is integrated into the instruction and allows for the autonomy and creativity to sustain learning. The Stages within each SoW normally fall into the following:

- **Introduction**
  The introduction of the topic / theme is obviously the first stage, this is a time to fire the learners up get them ready to investigate further.

- **Research**
  Researching the topic could be accomplished in a number of ways using a range of techniques and Hwb tools dependant on the age, aptitude and ability of a teachers own learners.

- **Planning**
  It is all too easy just to fall into allowing learners to jump into using Minecraft without getting them to think about what they are going to build, to plan what they are going to build. There is an old adage 'Fail to plan and you plan to fail' this can be so true if this Stage is not taken; as planning what they are going to build is crucial! Learners need to think about: size, scale, which blocks to use etc. The use of squared paper and coloured pencils, to represent the different blocks is invaluable at this Stage.

- **Building**
  Then the exciting Stage! The actual build. Because of the **research / investigation** Stage the learners know what they are building a representation of. Moreover because of the **planning** Stage they know how they are going to build their representation. This all leads to learners being more discerning in what they build, it actually facilitates creativity too. It is part of self-regulation, planning their own work and opportunities to review work based on their own reflection and feedback too.

- **Sharing Information**
  The various tools available within Minecraft: Education Edition, such as Signs, NPCs (linking out to various online documents), Cameras etc. all allow a learner to share information, the information they have gathered in the **research / investigation** Stage. All of this builds on the knowledge construction that has been developed through the various Stages so far and then allows the learners to apply their knowledge in a new context, which quite often is interdisciplinary! Often this involves literacy and oracy too.

- **Presentation**
  This Stage can develop a learner's oracy further and develop confidence too. Moreover, it helps learners to develop their critical thinking skills and in turn become better learners!

  Taking learners through these various Stages, dividing the process into parts, you are helping learners to build awareness, understanding and control of their thought processes – metacognition!

The Stages also need to be broken down into Steps. The supporting Lesson Plan documents details the Steps, providing the main ideas to be developed, the main activities to undertake, checking for understanding etc. each Step building upon the previous Step.

In developing the SoW and supporting Lesson Plans in this way the Hwb MLCs have been following Mitchel Resnick's four P's of creative learning:

- **Projects**. People learn best when they are actively working on meaningful projects – generating new ideas, designing prototypes, refining iteratively

- **Peers**. Learning flourishes as a social activity, with people sharing ideas, collaborating on projects, and building on one another's work

- **Passion**. When people work on projects they care about, they work longer and harder, persist in the face of challenges, and learn more in the process

- **Play**. Learning involves playful experimentation – trying new things, tinkering with materials, testing boundaries, taking risks, iterating again and again

These four P's are strongly aligned with (and inspired by) the Constructionist approach to education, which emphasises the value of learners playfully creating personally meaningful projects in collaboration with peers.

Challenges

The Challenges that have been developed by the Hwb MLCs are much shorter projects, usual design to take just a few hours of classroom time. They are however, still built upon all the principals that have been detailed for the SoW and supporting Lesson Plans. These are particular useful for teachers who are still fairly new to Minecraft: Education Edition and want to 'dip their toe in' before undertaking a full half term project.

Classroom management can be one of the most dauting aspects for a teacher new to using Minecraft: Education Edition in their classroom. To address this the Hwb MLCs have used to their experience to develop a specific Challenge that encourages learners to develop their own set of rules / norms for working in an online environment in a collaboration with other learners. In essence developing good Digital Citizenship. Experience has proven that if learners are involved in developing the rules, they are much more likely to adhere to them!

Digital Citizen of Wales Challenge

This Challenge is organised into 6 Steps where learners will travel along a Golden Path in the Digital Citizenship world. Along the Golden Path learners will interact with various NPCs, undertake a range of mini challenges within the world, undertake a range of 'unplugged' actives outside the Digital Citizenship world. All aimed at developing their knowledge and understanding of what is required t be a good Digital Citizen. The Challenge culminates in the learners receiving a certificate at the end of the Golden Path.

Age
All Ages
Key Stage 2,3 or 4

Area of Learning and Experience
- Health and Well-being
- Language, Literacy and Communication

Cross-Curricular Skills
- LNF
- DCF: Citizenship

Duration: approx. 4 hrs.

More Challenges are available on a range of topics, please see page 17onwards.

SoW and supporting Lesson Plans are detailed on the following page.

Schemes of Work & Supporting Lesson Plans

Amazing Architecture

This Scheme of Work is organised into 5 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 5 Stages.

Learners will develop an understanding of how architects design buildings through exploring an example of *amazing architecture* in Minecraft: Education Edition. Learners will research and collect examples of interesting or unusual buildings from around the world and explore why these buildings are unique.

Following their research, learners will plan, design and build their own examples of *amazing architecture* in Minecraft: Education Edition.

Learners will create multimedia presentations to share information about their amazing buildings. These presentations will be linked to their Minecraft buildings through the addition of NPC's. Learners will then create video walkthroughs to present their *amazing architecture* to a wider audience.

Age

7-14
Key Stage 2, 3 or 4

Area of Learning and Experience

- Expressive Arts
- Language, Literacy and Communication

Cross-Curricular Skills

- Literacy
- Numeracy
- DCF:
  - Producing
  - Interacting and Collaborating

Blast from the Past

This Scheme of Work is organised into 5 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 5 Stages.

Learners will research the history of their local area and explore how it has changed over time. They will use various ways to collect information, including online research and creating a Microsoft Form to send to local residents, talk from local residents etc.

Learners will use the information gathered to re-create the area in Minecraft: Education Edition as it was at a certain point in time.

They will use other tools, for example Microsoft Sway, to create an information text about what has changed and why/ Learners will also use Minecraft: Education Edition features such as signs and NPCs to link to this information.

At the end of the project, learners will explore the shared world and the builds (features) made by other groups, access the information via the NPCs to broaden their understanding of how the local area has changed over time.

Age

7-14
Key Stage 2, 3 or 4

Area of Learning and Experience

- Humanities

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital competence

Building a Castle

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

Learners will learn about the history of how a local castle was built and re-create a model of the local castle in groups using Minecraft: Education Edition.

Learners will develop their planning, collaboration and communication skills but crucially will develop knowledge about a local historical building and crucially why and how it was built in the first place. The project itself is based around the design engineering cycle.

Developing literacy is a key part of this project. In order to understand the historical context of why the castle was built in a specific area involves a lot of research. A range of reading techniques, such as close reading, skimming and scanning will also develop as part of this research. The project provides the learners with opportunities to develop their writing skills, especially so in the initial research and planning phase and also the evaluation phase at the end of the project.

Accessing and exploring a range of texts from a variety of places and time to analyse evidence, to think critically, is a crucial part of the research and planning phase. When developing their builds from their plans, learners will be making decisions and solving problems sub-consciously as part of their thinking processes.

Planning and organisation are key in a collaborative build and learners will be organising and planning their projects and ideas, while setting their own goals within distinct requirements. They will also be critically evaluating their progress and results to further improve their ideas and outcomes.

With the added component of using Agents in Minecraft: Education Edition, coding can be introduced in this project. Computational Thinking is a big part of using Agents in Minecraft: Education Edition and developing this skill is largely done sub-consciously as the learners will be consistently solving problems, re-using algorithms and adapting algorithms as they work through the build.

Age

8-16
Key Stage 2, 3 or 4

Area of Learning and Experience

- Humanities

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital competence

The Celtic Roundhouse

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

The stages are is designed to help learners understand how the Celts used to live and understand what a roundhouse would be like to live in, to give them an idea of the daily life of a Celt in Wales.

It covers a range of skills including Descriptive Writing, Estimation and Measurement, Producing and Collaborating using Minecraft: Education Edition as well as Oracy and opportunities for outdoor learning. It culminates in the learners creating a Minecraft roundhouse, using the information they have gathered in the previous stages.

Age

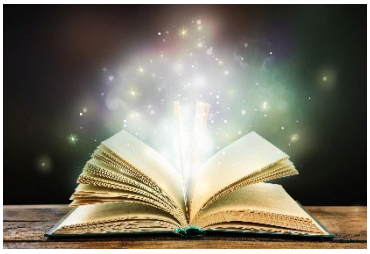
6-13
Key Stage 2, 3

Area of Learning and Experience

- Humanities
- Expressive Arts
- Language, Literacy and Communication
- Mathematics and Numeracy

Cross-Curricular Skills

- Literacy
- Numeracy
- LNF
- DCF



Fairy Tales

This Scheme of Work is organised into 5 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 5 Stages.

During this project learners will learn and investigate the following aspects:

- Where do traditional fairy tales stem from?
- Introduction to key authors
- Learners will investigate various traditional tales

- Learners will draft and plan their own 'twisted' fairy tale
- Learners will create a scene/ piece of architecture from their 'twisted' fairy tale in Minecraft: Education Edition
- Learners will use advanced features of Minecraft: Education Edition to retell their 'twisted' fairy tale
- Learners will invite their peers to visit their world and experience their modified fairy tale

Age

3-10
Foundation Phase, Key Stage 2

Area of Learning and Experience

- Language, Literacy and Communication
- Expressive Arts

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital competence

Islands of Holy Worship

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

This project will provide opportunities for learners to enquire, explore and investigate their world and develop appreciation of identity and heritage.

Learners will have opportunities to discuss religion and what it means to them. They will explore different religions in Wales and around the world. They will research and plan a symbol, place of worship or statue in Minecraft: Education Edition. They will share their work with others to educate them about different religions and help develop ethical, informed citizens of the world.

Age

8-16
Key Stage 2, 3 or 4

Area of Learning and Experience

- Humanities

Cross-Curricular Skills

- Numeracy
- Literacy
- Digital competence

Japan

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

As the Olympic Games come to Japan, learners will research and learn more about the country. This scheme of work could be adapted to research another country to link in with class themes.

Learners will use various ways to collect information. They will set up a link with learners in Japan via Flipgrid, Skype or Teams. They will ask a range of questions to find out specific information about Japanese culture and landmarks.

In pairs or small groups, learners will choose a specific landmark from Japan and plan their build.
They will then create the landmark using Minecraft: Education Edition. They will link to their research findings using NPCs (Non-Playing Characters).

Learners will record a walkthrough of their build to share with other learners. These videos could also be shared with learners in Japan.

Age

All Ages
Foundation Phase,
Key Stage 2, 3 or 4

Area of Learning and Experience

- Humanities
- Languages, Literacy and Communication
- Expressive Arts

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital Competence

Living Sustainably

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

Learners will learn about which of the world's resources are running low and how we should learn to use them sustainably.

Learners will develop their planning skills and identifying how their builds will not only be made out of sustainable materials but also to allow the owners of their builds to live in a sustainable manner.

This project covers many aspects of the Science and Technology Area of Learning and Experience. The learning objectives are mapped to the 'what matters' statements in the AOLE and the project itself is based around the design engineering cycle.

Additionally, developing literacy is a key part of this project. In order to understand the meaning of living sustainably and what defines a sustainable material, this involves a lot of research. A range of reading techniques, such as close reading, skimming and scanning will also develop as part of this research. The project provides the learners with opportunities to develop their writing skills, especially in the initial research and planning phase and also the evaluation phase at the end of the project.

Critical thinking and problem-solving are at the heart of Science and Technology when analysing problems to develop models, solutions and innovations. This is an integral part of this project especially so during the building phase of the project. When developing their sustainable builds from their plans, learners will be making decisions and solving problems sub-consciously as part of their thinking processes.

Planning and organisation are key in scientific and technological processes and learners will be organising and planning their projects and ideas, while setting their own goals within distinct requirements. They will also be critically evaluating their progress and results to further improve their ideas and outcomes.

Age

8-19
Key Stage 2, 3 or 4

Area of Learning and Experience

- Science and Technology
- Humanities
- Expressive Arts

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital competence
- LCF
- DCF

Museum of Wales

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

Learners will research the geography, history, culture and attractions of Wales and discover some of the main areas and features of the country. Learners can use various ways of collecting information, including online research and creating a Microsoft Form to send to peers and family.

Learners will use the information gathered to build within the Minecraft: Education Edition 'Museum of Wales' and build exhibits to showcase Wales.

They will use other tools available on Hwb, for example Microsoft Sway / Flipgrid to create an ideas board in order to select the most important aspects of Wales that they would like to include. Learners will use NPC's, posters, signs in order to present the research findings throughout their build.

At the end of the project, learners will share their builds with others within the class to broaden their understanding and knowledge of Wales.

Age

6-13
Key Stage 2, 3

Area of Learning and Experience

- Science and Technology
- Humanities
- Language, Literacy and Communication

Cross-Curricular Skills

- Curriculum Cymraeg
- Numeracy
- DCF:
  - Citizenship
  - Producing
  - Interacting and Collaborating

Build a Pixel Art Gallery

This Scheme of Work is organised into 5 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 5 Stages.

Learners will explore linking expressive arts in the digital world and includes:

- research, planning and producing pixel art
- developing an understanding of how this translates into digital art and gaming
- displaying the art pieces for maximum audience appreciation in a suitable environment
- collaborating and sharing output for reflection

Age

6-13
Key Stage 2, 3

Area of Learning and Experience

- Expressive Arts
- Science and Technology
- Health and Well-being
- Language, Literacy and Communication

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital Competency
- DCF
- Welsh Dimension-raising awareness of artists and digital designers from Wales

Surviving the Blitz

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

Learners will research the Blitz and the effect of World War Two on civilians, they will find out about the different types of shelters used during the Blitz and use this knowledge to design and create their own, using mathematical skills to ensure their shelter is constructed to their correct dimensions.

Learners will explore how to use Code Builder within Minecraft: Education Edition to construct a building of their own design.

Learners will combine their skills and research to code their Agent to build their shelter. Once completed learners will have the opportunity to visit the shelters and use these as a stimulus for writing.

Age

8-16
Key Stage 2, 3 or 4

Area of Learning and Experience

- Humanities
- Languages, Literacy & Communication
- Science & Technology

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital Competency

The Zoo

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

Learners will collaborate to design and build a new zoo for their village in a collaborative Minecraft: Education Edition World. They will research zoos and recall prior knowledge of their visit to a zoo. Learners will decide which animal enclosure they want to build. They will use various ways to collect information about their chosen animal. Learners will present information about their animals using boards. Learners will create a poster to advertise their zoo. They will then write a diary of their day at the zoo.

Age

3-10
Foundation Phase
Key Stage 2

Area of Learning and Experience

- Humanities
- Expressive Arts
- Languages, Literacy & Communication

Cross-Curricular Skills

- Literacy
- DCF
- LNF

Theme Park

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

This project is designed to help learners link numeracy to all aspects of a Theme Park, from planning and budgeting to the actual building of the park.

It covers an array of numeracy skills, starting with the area of the rides and attractions, to the profit and loss of the park and all its amenities.

Learners move onto creating a Minecraft Theme Park using the layout and research they complied in the Scheme's previous lessons.

It culminates with the learners creating a website to promote their Theme Park suing persuasive writing.

Age

8-16
Key Stage 2,3 or 4

Area of Learning and Experience

- Huminites
- Language, Literacy and Communication
- Mathematics and Numeracy
- Science and Technology
- Health and Well-being

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital Competence
- DCF
- Curriculum Cymreig

Time Capsule

This Scheme of Work is organised into 6 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 6 Stages.

Learners will conduct research to produce a time capsule, including different objects, places or people, to represent a particular 'moment in time'.

This scheme of work could be adapted to suit any topic or theme. It could be based around a person, a particular place or time period.

Learners will research their chosen topic and use this research to identify the key features or themes to be re-created in Minecraft: Education Edition.

They will use other tools such as Office 365 to create information texts to explain their choices and can use Minecraft: Education Edition features such as signs and NPCs to link to this information. At the end of the project, learners will explore the shared world and the builds made by other groups and access the supporting information via the NPCs.

Age

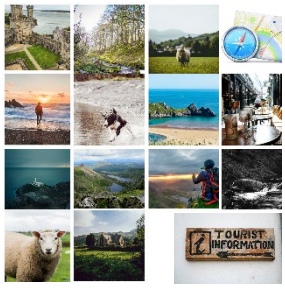
8-16
Key Stage 2,3 or 4

Area of Learning and Experience

- Huminites
- Language, Literacy and Communication

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital Competence



Tourist Information Centre

This Scheme of Work is organised into 5 Stages. The below is a high-level overview of each stage, more detailed support for each stage is also available in individual Lesson Plans for each of the 5 Stages.

Learners will research specific attractions or place of interest, such as a landmark, national park, national forest, or state park etc. that might entice tourists to visit Wales.

Learners can use various ways of collecting information, then they will use the information gathered to build within the Minecraft: Education Edition 'A Tourist information Centre' for Wales and link to information documents to showcase Wales.

They will use other tools available on Hwb, for example Microsoft Sway / Flipgrid to create an ideas board in order to select the most important aspects of Wales that they would like to include. Learners will use NPC's, posters, signs in order to present the research findings throughout their build.

At the end of the project, learners will share their builds with others within the class to broaden their understanding and knowledge of tourist attractions in Wales.

Age

8-16
Key Stage 2,3 or 4

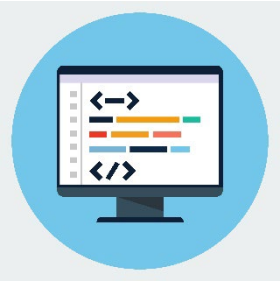
Area of Learning and Experience

- Humanities
- Science and Technology
- Health and Well-being
- Expressive Arts
- Language, Literacy and Communication

Cross-Curricular Skills

- Literacy
- Numeracy
- Digital competence

Challenges



Coding your Agent Challenge

This Challenge is organised into 3 Steps where learners must code Agent to build four different 3D geometric shapes in specific locations within the Amazing Code world. The learners will need to write four different algorithms and test them to evaluate outcomes.

Age
8-16
Key Stage 2,3 or 4

Area of Learning and Experience
- Science and Technology
- Mathematics and Numeracy

Cross-Curricular Skills
- Numeracy
- DCF: Data and Computational Thinking

Duration: approx. 2+ hrs.

Classroom 2050 Challenge

This Challenge is organised into 3 Steps where learners will explore how classrooms have changed throughout history. They will discuss what they think may change in the future and use these ideas to design a classroom for a school in 2050.

Age
All Ages
Key Stage 2,3 or 4

Area of Learning and Experience
- Humanities
- Language, Literacy and Communication

Cross-Curricular Skills
- Literacy
- DCF: Planning

Duration: approx. 2 hrs.

Gardd Cymru/ Garden of Wales Challenge

This Challenge is organised into 3 Steps where learners will research famous landmarks or features of Wales before designing and building their own landmarks in a Minecraft: Education Edition Garden of Wales.

Using a flat world, learners will create a garden with 4 areas of their choice to showcase "their" Wales.

Age
8-13
Key Stage 2,3

Area of Learning and Experience
- Humanities
- Expressive Arts

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Producing

Duration: approx. 2 hrs.

Halloween Challenge

This Challenge is organised into 3 Steps where learners will be provided with engaging and challenging stimuli to help aid and prepare purposeful writing. Learners will be given opportunities to explore and experiment with their writing.

They will have the opportunity to use a wide variety of ambitious and exciting vocabulary. They will be given opportunities to review, revise and edit their writing.

They will be given opportunities to present writing in different forms and styles, including digitally and online. Learners will be tasked with creating a spooky story in time for Halloween. They must read spooky stories in advance to form an idea of how spooky stories are written, then plan and finally create their stories.
When the stories are complete, they can bring them to life by creating the spooky setting in Minecraft: Education Edition

Age
8-13
Key Stage 2,3

Area of Learning and Experience
- Language, Literacy and Communication

Cross-Curricular Skills
- Literacy
- DCF: Producing, Interacting and Collaborating

Duration: approx. 7 hrs.

Healthy Village Challenge

This Challenge is organised into 3 Steps where learners will investigate what it means to be healthy and discuss the following questions:

- How do you keep healthy?
- What is good for your wellbeing?
- The class will collaborate on planning and building a healthy village

Age
6-13
Foundation Phase
Key Stage 2,3

Area of Learning and Experience
- Health and Wellbeing
- Humanities
- Language, Literacy and Communication

Cross-Curricular Skills
- LNF
- DCF: Citizenship, Interacting and collaborating, Producing

Duration: approx. 2 hrs.

Instruction Writing Challenge

This Challenge is organised into 3 Steps where learners will create an instruction book on how to build a simple house in Minecraft: Education Edition.

The learners will create a flat world in creative mode. Their task will be to build a simple structure such as a house.

As they build, they will use the camera to take photos of the build process e.g. a photo of the walls, then the windows, then the door etc. Once they have finished their build, they will need a book & quill. They will add the first photo they took and write instructions how to start the build. They will keep on adding the photos and write instructions for each until they have a whole set of instruction.

Age
3-10
Foundation Phase
Key Stage 2

Area of Learning and Experience
- Language, Literacy and Communication

Cross-Curricular Skills
- Literacy
- DCF: Producing, Data and Computational Thinking

Duration: approx. 2 hrs.

Let the Game Begin Challenge

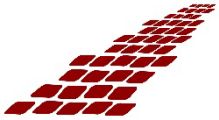
This Challenge is organised into 3 Steps where learners will work creatively to invent a new sport which could be played in the Olympics. They will research and compare current sports and where they are played. Then create a list of what they will need to consider e.g. rules, scoring, and equipment. Learners will then design a venue for their sport to be played in and create this using Minecraft: Education Edition. They will then make use of Minecraft: Education Edition features such as the chalkboard and NPCs (Non-Playing Characters) to share information about their sport, including instructions about how to play.

Age
All Ages
Foundation Phase
Key Stage 2, 3 or 4

Area of Learning and Experience
- Expressive Arts
- Health and Wellbeing
- Mathematics and Numeracy

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Producing

Duration: approx. 3 hrs.



Redstone Road Challenge

This Challenge is organised into 3 Steps where learners will travel along the Redstone Road, in the Minecraft Redstone Road World, to explore how Redstone functions, its many uses, its power to activate things, move things and how it can turn Minecraft builds into complex and intricate structures. Learners are the challenged to build a functioning machine using Redstone and explain its purpose.

Age
11-16
Key Stage 3 or 4

Area of Learning and Experience
- Science and Technology

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Data and Computational Thinking

Duration: approx. 2 hrs.

My Emotions Challenge

This Challenge is organised into 3 Steps where learners will explore the different emotions that they often experience and more crucially, discuss a variety of strategies that can be used for self-regulation and supporting others.

Learners will be asked to spawn into a new world where they will build an 'emotion village'.

More specifically, learners will be assigned a specific emotion and create a building (using Minecraft: Education Edition tools) that conveys that emotion effectively.

Learners will then use a variety of Minecraft: Education Edition tools (such as NPC'S/ Whiteboards/Slates/ Book & Quill) to provide an explanation for what the emotion is and crucial strategies to help overcome the emotion if unwanted. Learners will explore other emotion buildings that other learners have built and thus learn all about the various emotions.

Age
6-13
Foundation Phase
Key Stage 2, 3

Area of Learning and Experience
- Health and Wellbeing

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Interacting and Collaborating, Producing

Duration: approx. 3 hrs.

People Who Help Us Challenge

This Challenge is organised into 5 Steps where learners will gain an in depth understanding of the roles of key figures in their community and the people that help them.

Learners will be placed into small groups of 4-5. Each group member will choose a key community figure to focus upon e.g. one learner will focus on the fire service and another learner on paramedics. They will then be responsible for researching this key figure.

Learners should consider:
- What are their roles?
- What equipment may they need?
- Where are they based?

Learners will then spawn into a blank world whereby they will each build a designated building that represents their figure e.g. a doctor's surgery/ police station/ fire station etc. Learners will then choose appropriate NPCs to portray their chosen figures and use this Minecraft: Education Edition feature to describe their role within the community. They will then include links to external web pages that are significant to their chosen figure.

Age
6-10
Foundation Phase
Key Stage 2

Area of Learning and Experience
- Health and Wellbeing
- Language, Literacy and Communication

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Producing

Duration: approx. 4 hrs.

That's an Amazing Game Challenge

This Challenge is organised into 3 Steps where learners will learn about the dangers of staying safe and being seen in the outside world.

They will design and build a series of mazes/obstacles (which could include water, fire, darkness etc) within Minecraft: Education Edition and share this world with their fellow learners. Using the shared world and Code Builder (accessed from within Minecraft: Education Edition) they will create a set of algorithms to safely guide their Agent through each section of the maze.

Age
8 -16
Key Stage 2,3 or 4

Area of Learning and Experience
- Health and Wellbeing

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Producing, Data and Computational Thinking

Duration: approx. 3 hrs.

The Island Challenge

This Challenge is organised into 3 Steps where learners will join the collaborative Survival Island world and experience life marooned on an island.

They will explore the island and work collaboratively to survive. Teacher will encourage learners to discuss feelings throughout the task and create a diary to document their journey.

Age
8-13
Key Stage 2, 3

Area of Learning and Experience
- Languages, Literacy and Communication
- Humanities

Cross-Curricular Skills
- LNF
- DCF: Citizenship, Interacting and collaborating, Producing

Duration: approx. 2 hrs.

Build a Wind Turbine Challenge

This Challenge is organised into 3 Steps where learners will be given a brief to design a wind turbine that produces the most current.

Learners will need to investigate wind turbines to decide on their design. Before moving on to designing the wind turbine, learners will need to analyse the brief in order to decide on the requirements of their wind turbine.

Could Redstone be used to turn the motor of the wind turbine?

Age
11-18
Key Stage 2, 3 or 4

Area of Learning and Experience
- Science and Technology
- Languages, Literacy and Communication

Cross-Curricular Skills
- Literacy
- Numeracy
- DCF: Producing, Computational Thinking

Duration: approx. 3+ hrs.

Through the Portal Challenge

This Challenge is organised into 3 Steps where learners will compare a familiar and imagined setting using a range of descriptive techniques appropriate to the ability of the learner. Learners will build their settings in Minecraft: Education Edition and create a portal to travel between settings.

Age

6-13
Foundation Phase
Key Stage 2, 3

Area of Learning and Experience

- Languages, Literacy and Communication

Cross-Curricular Skills

- LNF

Duration: approx. 2+ hrs.

Welsh Music Festival Challenge

This Challenge is organised into 3 Steps where learners will work collaboratively to create a new Welsh Music Festival.

Learners will research existing festivals held in Wales and any previous music festivals that have taken place. They will need to plan out the various elements of a music festival e.g. main stage, smaller stages, information point, main entrance.

Learners will then design the festival venue and create the festival in Minecraft: Education Edition.

They will then make use of Minecraft: Education Edition features such as the chalkboard and NPCs (Non-Playing Characters) to share information about their festival, including hyperlinks to YouTube videos, Sway presentations or websites of artists.

Age

8 -18
Key Stage 2, 3 or 4

Area of Learning and Experience

- Expressive Arts
- Languages, Literacy and Communication

Cross-Curricular Skills

- Literacy
- DCF: Producing, Interacting and Collaborating

Duration: approx. 3 hrs.

Celebrations from Around the World Challenge

This Challenge is organised into 5 Steps where learners will go on an exciting journey of discovery as learners research the different celebrations and festivals celebrated across the world - including those they know and celebrate and lots more that they may not.

To enable learners to have a rich and meaningful experience and learn purposefully, the Challenge should be visited at least four times throughout the calendar year, i.e. each season.

This gives leaners an ideal opportunity to find out about the similarities and differences between cultures and communities. By exploring the vast range of celebrations and festivals leaners will not only understand our values but just as importantly other countries and cultures values.

Age

6-13
Foundation Phase
Key Stage 2, 3

Area of Learning and Experience

- Humanities

Cross-Curricular Skills

- LNF
- Welsh dimension and international perspective:
- DCF: Producing, Interacting and Collaborating

Duration: approx. 6 hrs.