

Barker's Lane Community School

Knowledge & Understanding of the World (embracing Science, Geography & History) Policy

At Barker's Lane Community School we believe children deserve to experience the familiar world through enquiry, investigating the indoor and outdoor environment in a safe and systematic way. We provide experiences that help them to increase their curiosity about the world around them and to begin to understand past events, people and places, living things and the work people do. Children are encouraged to use all their senses and to enjoy learning by exploration, enquiry, experimentation and asking questions. Learning to demonstrate care, responsibility, concern and respect for all living things and the environment fosters positive attitudes and allows children opportunities to express their own ideas, opinions and feelings with imagination, creativity and sensitivity.

Our links with international schools and the undertaking of international projects ensure the children at Barker's Lane have first-hand experiences of global citizenship.

Aims and objectives

By experiencing the familiar world through investigating the indoor and outdoor environment learning becomes meaningful and effective. At Barker's Lane Community School we ensure experiences are relevant and part of children's everyday lives enabling them to use their natural curiosity to make sense of and be aware of the beauty of their surroundings.

At Barker's Lane Community School we aim to:

- stimulate children's curiosity, interest and enjoyment with the world;
- encourage positive, enthusiastic attitudes to the world;
- enable children to explore and experiment; think about questions, ask them and listen to the answers;
- develop children's specific vocabulary;
- develop open, enquiring minds, which can think creatively and imaginatively;
- enable children to see links between cause and effect;
- develop children's abilities to use a range of sources for research, including digital technology;
- enable children to communicate their observations, ideas, opinions and feelings in a variety of ways, including using digital technology;
- develop children's skills of reflection to evaluate own and work of others.

Through 'myself, other living things and non-living things' and Science at Barker's Lane Community School we aim to:

- develop children's knowledge and understanding of themselves, plants and animals;
- enable children to recognise different environments / habitats and the effects of different seasons on some plants and animals;
- enable children to distinguish between and group materials according to their properties and to understand how different materials behave, relating this to their purpose;
- develop children's knowledge and understanding of some physical phenomena.

Through 'places and people' and Geography at Barker's Lane Community School we aim to:

- enable children to learn about their own and other localities around Wales and the wider world;
- develop children's skills to use maps, atlases and globes;
- enable children to recognise and distinguish between natural and human features;
- develop children's awareness of how people's actions can improve or damage the environment.

Through 'time and people' and History at Barker's Lane Community School we aim to:

- enable children to recognise change caused by time;
- develop children's ability to identify differences between ways of life at different times in Wales and the wider world;
- enable children to recognise there are reasons for and consequences of some actions;
- develop children's appreciation of different representations and interpretations of the past.

Teaching and learning style

We believe children should acquire and absorb their skills, knowledge and understanding of the world through a holistic approach to learning. Our principle aim is to develop children's skills, knowledge and understanding through a structured developmental and progressive continuum, taking account of their learning needs and allowing for spontaneous developmental opportunities when they arise.

We aim to ensure learning is exciting, challenging and creative, and that learners understand what they need to do to improve and how they can do this.

We develop children's mental recall skills through carefully planned activities and differentiated questions.

Children's skills are developed in their knowledge and understanding of the world through participation in experiential learning activities / experiences and through using a range of sources such as stories, photographs, maps, models and digital competency. They have lots of opportunities to explore the indoor and outdoor environment including natural conditions as they arise and engage with resources from a variety of contexts including interactive forms.

We recognise all children are different and provide suitable learning opportunities for all children by matching the challenge of the activity to the needs / ability of the child. We achieve this through a range of strategies taking account of all learning styles, extending children's thinking skills, providing opportunities for children to plan, develop and reflect on their own learning through the organisation of the learning environment. We encourage children to learn collaboratively and take some ownership for their own learning with adults facilitating this, willing to learn alongside.

When finding about themselves, living and non-living things early on the learning continuum children will have experiences which involve them building up an understanding of their own body through action rhymes, songs and using mirrors to look at their reflection. They will begin to make comparisons with other animals and explore using their senses. A sensory area will be provided to support this. In their physical play they will explore pushing and pulling and have opportunity to play with light / sound sources. They will learn about the dangers of electricity. Through their exploratory play and problem solving children will begin to use a variety of materials and in their creative play experience a range of malleable materials.

As they progress through the Foundation Phase children will use magnifiers to observe, sort and group according to different criteria and record their findings in different ways. Through practical activities they can observe plant growth and carry out investigations after first making a prediction. They will have experience of investigating forces through play, create their own electrical circuits and investigate light and sound sources. When using malleable materials children will be able to explore properties of materials and through cooking activities can look at changes that can take place. There will also be plenty of opportunities to use a variety of research material.

In Science at Key Stage 2, children develop their skills through the range of Interdependence of Organisms, The Sustainable Earth and How Things Work. Learners are taught to relate their scientific skills, knowledge and understanding to applications of science in everyday life, including current issues. They are taught to recognise that scientific ideas can be evaluated by means of information gathered from observations and measurements. Teaching encourages learners to manage their own learning and develop learning and thinking strategies appropriate to their maturity. They are taught to value others' views and show responsibility as local citizens. Activities foster curiosity and creativity and are interesting, enjoyable, relevant and challenging for the

learner. They enable learners to initiate, explore and share ideas, and extend, refine and apply their skills, knowledge and understanding in new situations. They allow time for thinking, peer discussion and reflection.

Thinking about places and people will provide children with opportunities to explore their own home and immediate environment early on the learning continuum. They will be able to investigate personal experiences and take walks in the local area to produce simple maps.

Later on the learning continuum in the Foundation Phase children will make visits to their own and contrasting localities to develop skills of enquiry and become competent in identifying and distinguishing between geographical features. They will have opportunities to create small world scenarios or record their findings in a variety of ways, including using digital technology. They will create their own more sophisticated maps / plans building on earlier experiences and use programmable floor toys.

At Key Stage 2 in their Geography develops and stimulates learners' interest in, and fosters a sense of wonder of, places and the world about them. Through the study of their own Welsh locality, the world beyond, different environments and events in the news, learners develop their understanding of what places are like and how and why they change. Through practical activities and first-hand investigations in the classroom and out of doors, learners develop skills to gather and make sense of information, use maps, think creatively and share ideas through discussion. Geography provides opportunities for learners to consider important issues about their environment, and to recognise how people from all over the world are linked. They are encouraged to understand the importance of sustainability, develop an informed concern about the quality of their environment, and to recognise that they are global citizens.

Early on the learning continuum when exploring time and people children will begin with the familiar by sequencing events in their own day / life using pictures, objects and photographs. Through role play, stories, songs and rhymes they will experience sequencing the passing of time and using the related vocabulary. By playing with objects and using interactive displays children will be able to handle and compare various artefacts.

Visits / role play are crucial for children to experience as they progress along the learning continuum in the Foundation Phase to gain a greater understanding of ways of life in the past. Visitors are invited into school to share their own experiences of childhood with the children as on a source of evidence. The children have lots of opportunities to research sources and interpret evidence to understand why people did things, why events happened and some of the consequences.

Children progress with their History skills in Key Stage 2 through experiences that make history enjoyable, interesting and significant. They develop their curiosity about the past, the characteristics of different periods, from early times to the present, and the ways in which they are different from each other and from the present. They learn by enquiry about the ways of life of different people in these periods of history, drawing on important developments, key events and notable people in their locality, Wales and Britain. They engage in stimulating and focused historical enquiry using a wide range of sources, including representations and interpretations of the past, and organise and communicate their skills, knowledge and understanding in an increasing variety of ways.

Planning for Knowledge & Understanding of the World / Science, Geography & History

Knowledge & Understanding of the World is taught to all infant pupils at Barker's Lane Community School, taking account of Foundation Phase (FP) philosophies. Children build on these skills, knowledge and understanding in Science, Geography and History at Key Stage 2.

In the Foundation Phase, Knowledge & Understanding of the World comprises of:
Myself and Other Living Things; Myself and Non-Living Things (Science)
Places and People (Geography)
Time and People (History)
People, Beliefs & Questions (R.E - own policy in line with agreed syllabus)

At Key Stage 2:

Science comprises of:

Skills -Communicating	Range –	Interdependence of Organisms
Enquiry		The Sustainable Earth
Developing		How Things Work
Reflecting		

Geography comprises of:

Skills –Locating places, environments and patterns
Locating places, environments and processes
Understanding
Investigating
Communicating

History comprises of:

Skills – Chronological Awareness
Historical Knowledge & Understanding
Interpretation of History
Historical Enquiry
Organisation and Communication

The Range for both Geography and History provides the flexibility for developing learners' skills, knowledge and understanding within contexts which are interesting and relevant (detailed in National Curriculum documents).

Planning is carried out in three phases (long-term, medium-term and short-term). The long-term plan maps out the learning challenges to be covered in the Foundation Phase and each year group at Key Stage 2. The Curriculum Leaders liaise with colleagues to establish these.

Our medium-term plans give further details of learning challenges for each term. These plans focus on developing children's skills, determine the learning challenges and ensure an appropriate balance across the term. The Curriculum Leaders keep a copy of these plans and review them with colleagues.

Short term plans are completed on a weekly basis by individual / teams of teachers. Each teacher keeps these individual plans, and the teachers and the Curriculum Leaders discuss them on an informal basis. The headteacher monitors these each half-term.

Knowledge & Understanding of the World / Science, Geography and History are planned to build upon children's prior learning. Whilst there are opportunities for children of all ability levels to develop their skills, knowledge and understanding, there is planned progression built into the scheme of work, so that children are increasingly challenged as they move along they progress.

Planning takes account of key skill development, including the development of children's thinking skills through a variety of problem solving and investigational experiences.

The Literacy & Numeracy Framework (LNF)

The Literacy and Numeracy Framework (LNF) sets expectations for learners to develop and apply their literacy and numeracy skills across the curriculum.

Literacy skills in oracy, reading and writing; and numeracy skills in numerical reasoning, number, measures and data are planned for across all areas of the curriculum.

Developing / applying these skills through creative work in Foundation Phase, for example:

Literacy

- Reading and referring to books and digital sources to find information about animals, the environment and famous people of the past and present, initially locating and discussing their findings progressing to being able to transfer and use the information to extend their learning
- Through initially listening to and asking questions of people / visitors with different roles in the community to progressing to writing descriptions about the work that these people do and how important they are to our communities today

Numeracy

- Devising plans and maps of the school environment and the local environment reinforces the development of the mathematical language of position
- Collecting and analyzing data about themselves, places and the past provides opportunities for different ways of communicating this
- Measuring in context when investigating about the world

In Key Stage 2, for example this might be:

Literacy

- Extended writing with specialist terminology
- Discuss topical issues, develop and justify their ideas, views and opinions in debates and through multimedia presentations
- Assess the authenticity and bias of data and media reports, and adapt their own presentations to different audiences

Numeracy

- Estimate and measure using non-standard and then standard measures, recording the latter with appropriate Standard Units.
- Use tables, charts and graphs to record and present information.
- Draw lines of best fit on line graphs.
- Measure, gather and analyse data in fieldwork
- Understand direction, distances and scale, and to determine locations when using plans, maps and globes
- Making use of and analyse data, *e.g. census returns and statistics*.

Digital Competency

The Digital Competency Framework (DCF) develops skills and confidence that enable learners to become adaptable to changes in technology over time. The DCF is planned across the curriculum to develop skills in **citizenship, interacting & collaborating, producing and data & computational thinking**.

In Science, learners use their digital skills for a number of purposes. They search for, access, collect, process and analyse relevant scientific evidence, information, ideas and data. They use digital technology to present their evidence, information, ideas and data in the most appropriate form.

In Geography, learners have opportunities to:

- use digital skills to access the internet for worldwide information
- use geographical information systems (GIS), satellite imagery and software for mapping technology to analyse data and study patterns
- use equipment in fieldwork to gather and organise information and select programmes to enhance their presentations of findings.

In History, learners develop their digital skills by using technology both in enquiries, and in developing and presenting their findings.

Knowledge & Understanding of the World across all areas of learning in the Foundation Phase

Effective provision for Knowledge and Understanding of the World is carefully planned across all areas of learning to ensure that children have opportunities to develop, apply and extend their skills and ideas in different media, including digital technology and to use tools safely with an awareness of danger.

Personal and Social Development and Well Being

- Initially discussing and investigating different types of food from a variety of cultures and identifying those which are healthy, progressing to recording findings in different ways
- Expressing personal views and feelings about events in the past, both personal and historical, using 'open' questions to extend children's thinking about emotions and those that others may/ not have felt during a specific event

GCSD / Cultural Diversity

- Talking and learning about different parts of the world / cultures; experiencing traditions and celebrations from different cultures in the local community and in others across Wales and the wider world
- Examining the environmental effects of humans on the world
- Discussing sustainable development in relation to own area and wider world

Bilingual Skills

- Developing Welsh vocabulary of features of the school environment.
- Whilst undertaking visits in the local environment, attention should be drawn to bilingual road signs, or Welsh or bilingual house, street or place names

Physical Development

- Using magnifying glasses to observe plants and insects then, recording these by using a variety of media; the diagrams and drawings becoming more sophisticated as the children's fine manipulative skills develop
- Through devising a route / roadways in the outdoor learning environment and by using bikes etc. children develop an understanding of direction and health and safety issues linked to road safety

Creative Development

- Using construction kits and recyclable materials children can make models of features within the local environment
- Using different musical instruments children can devise and represent sounds heard in the indoor and outdoor learning environments

At Barker's Lane Community School we extend this to include:

Spiritual and Moral Development

- Examine some fundamental questions in life, e.g. differences between living things
- Develop senses of awe and wonder regarding the beauty of the natural world
- Gain a knowledge and understanding of different cultures and learn to avoid stereotyping
- Discussing moral questions about the past and learning about key events e.g. Remembrance Day; St David's Day

Science, Geography & History and Skills across the Curriculum in Key Stage 2

At Key Stage 2, learners are given opportunities to build on their thinking and digital skills that they have started to acquire and develop during the Foundation Phase, in line with the non-statutory *Skills framework for 3 to 19-year-olds in Wales*. Learners continue to acquire, develop, practise, apply and refine these skills through group and individual activities in a variety of contexts across the curriculum. Progress can be seen in terms of the refinement of these skills and by their application to tasks that move from: concrete to abstract; simple to complex; personal to the 'big picture'; familiar to unfamiliar; and supported to independent and interdependent.

Thinking Skills

Learners develop their thinking across the curriculum through the processes of **planning**, **developing** and **reflecting**.

In Science, learners follow the processes of planning, developing and reflecting in all areas of Enquiry, through which the Range is taught. Focused paired/group work allows such processes to be articulated within lessons so that learning and thinking strategies can be developed and applied to new situations leading to high quality outcomes.

When good quality learning occurs, the cycle of plan, develop and reflect forms a spiral taking place throughout the learning. Learners reflect as they plan and develop a task, ensuring that they think about their thinking and use these thoughts to amend and refine their learning. By linking their learning to prior skills, knowledge and understanding from both within and outside of school, learners embed their progress and develop their thinking. These skills can then be applied across all aspects of their lives.

In Geography, learners will have opportunities to:

- investigate, plan enquiries and carry out fieldwork
- gather, sort and evaluate information, draw conclusions and form opinions to develop their understanding about places, environments and the geographical issues that affect the world around them
- reflect on what they have learned in one context to develop more abstract understanding, and apply their skills and knowledge to different places, environments and issues

Schemes of work are planned to provide opportunities for learners to use these skills and develop their geographical thinking by:

- finding out where **Places** are and appreciating the importance of a location in explaining the character of places, environments and issues
- recognising that features around them are not evenly distributed and that they form **Patterns** for which there are explanations
- identifying and investigating the **Processes** that create features and cause change
- recognising different **Linkages**; how natural and human processes interact, interrelate, are interconnected or may be interdependent
- applying their understanding at different **Scales** from the personal to local, regional, national and global.

In History, learners develop their thinking skills through historical enquiry and through reflecting on key questions, ideas and interpretations.

In addition to this at Barker's Lane Community School we take account of statutory requirements and cross curricular themes, such as the Curriculum Cymreig and personal and social education, which includes equal opportunities, food and fitness and sustainable development.

At Key Stages 2, learners at Barker's Lane Community School are given opportunities to build on the experiences gained during the Foundation Phase, and to promote their knowledge and understanding of Wales, their personal and social development and well-being.

Curriculum Cymreig

At Key Stage 2 learners are required to compare two local environments, by carrying out fieldwork. A better understanding of the factors that each environment is dependent upon, should lead to greater concern about the environment in Wales.

In Geography activities could provide opportunities for learners to:

- explore the diversity of the natural and human landscapes in Wales through investigations and fieldwork
- examine the economic processes that have changed Wales and how decision making at local, national and European levels can affect Wales' development
- explore the reasons for economic and environmental issues that affect communities in Wales, including their own.

History contributes to the Curriculum Cymreig by making local and Welsh history a focus of the study and helping learners to understand the factors that have shaped Wales and other countries today.

Personal & Social Education

The revised science Order provides a variety of opportunities for learners to explore a wide range of issues related to PSE.

In Geography activities provide opportunities for learners to:

- develop an appreciation of their role as local and global citizens and the diversity of communities in Wales and other countries
- investigate how and why environments change and the importance of sustainability
- enquire into the links between producers and consumers and how people's economic and environmental actions in one part of the world can impact on the lives of others; research information about places and peoples to counter stereotyping
- make well-informed judgments about issues, develop their own views and opinions, and appreciate the values and attitudes of others
- develop a sense of place and identity through investigating the links between communities and between regions in Wales, as well as understanding relationships between Wales and other countries.

History contributes to learners' personal and social education by developing their skills of enquiry and critical thinking; their understanding of different views and interpretations of people and events; and of the way in which people have affected their environment in the past. It gives learners an historical context in which to set their lives.

Additional Learning Needs

Knowledge & Understanding of the World / Science, Geography and History are developed with all children, whatever their ability. It forms part of a broad and balanced education for all children. Learning opportunities are matched to the needs of all children to include challenge and support for our most and least able children. When necessary these take account of any relevant targets set for individual children in their Individual Education Plans (IEPs).

Equality

Equality is always observed with positive attitudes being developed. We will not unlawfully discriminate on grounds of age, disability, gender, gender reassignment, race or ethnicity, religion

or belief, sexual orientation, marriage or civil partnership, pregnancy and maternity or on the grounds of Welsh language.

All pupils, their parents and guardians, volunteers, staff and school governors are valued and will be treated with dignity and respect. The school will not tolerate any form of discrimination, harassment or victimisation.

We will work across our school community to ensure our commitment to equality and fairness is shared and take steps to ensure that our school is accessible, welcoming and inclusive.

Curriculum Cymreig

Opportunities are provided to develop and apply their skills, knowledge and understanding of the cultural, historical and linguistic characteristics of Wales. The local and school environment is utilised to support this. E.g. Visits with local community / Visitors from local area talk to children; St David's Day

Health and Safety

Children are encouraged to discuss safety implications concerning themselves and their fellow pupils when working. We aim to ensure pupils work in an environment which is safe and hazard free at all times.

Infant children are encouraged to wear fluorescent jackets on their journey to and from school. Children are always reminded of how specific equipment is to be used to maintain a safe and hazard free environment. Specific equipment is safely stored until required and then used under close supervision.

Parental Involvement, Partnerships & Community

Parents and members of the community are encouraged throughout the school to support their children's learning. The children make a number of visits to places within the community e.g. Felin Puleston, Llangollen, local shops / business. Parents are often involved in activities in the local area and accompany on visits. Parents / grandparents are also asked to support their children learning about the past by answering questions about their own lifetime.

Liaison / Transition

Whole school planning allows for smooth transition between phases. Liaison between Curriculum Leaders and local high schools allows for smooth transition, progression and continuity from FP to KS2 to KS3.

Assessment and Recording

Teachers make assessments of children's Knowledge & Understanding of the World / Science, History and Geography through observation of activities and of children's work. These assessments are closely matched to learning challenges and are recorded as part of on-going formative assessment records.

On a termly basis we use this information to measure progress / inform next step for learning by making judgements as we observe children participating in activities and by looking at their written work. We make a judgement against level descriptors which takes account of F.P and N.C guidance. These assessments are recorded and used to plan for future learning.

The next teacher at the end of the year has access to this information, so that s/he can plan for the new school year. In KS2 the previous class teacher and new class teacher together then set targets in Science for the next school year, the following Autumn Term.

Statutory assessment in Year 6 consists of teacher assessment for Science during the Summer term.

These records also enable the teacher to make an annual assessment of progress for each child, as part of the child's annual report to parents.

Resources

There are a wide range of resources, including digital resources to support Knowledge and Understanding of the World / Science, Geography and History across the school. These are housed in classrooms and central resource areas. The library areas house a range of books to support children's individual research.

Monitoring and Review

Monitoring the standards of learning and the quality of teaching in knowledge and understanding of the world is the responsibility of the Knowledge & Understanding of the World / Science, Geography and History Curriculum Leaders. The work of the Curriculum Leaders also involves supporting colleagues, being informed about current developments, and providing a strategic lead and direction for this learning area within the school. The Curriculum Leaders liaise with each other, the headteacher and indicate areas for improvement. This is recorded on our School Improvement Plan and shared with staff and governors termly.

This policy was compiled by Miss L Evans, Mrs S Stapley & Mrs N Gargan in June 2012 in consultation with all staff and the governing body. It was reviewed by staff in April 2015 and again in March 2018 where amendments taking account of current guidance were made. The next review will be following statutory changes to the curriculum or Summer 2021 at the latest.