



Bridgend Outdoor Schools
Ysgolion Awyr agored
Pen-y-Bont ar Ögwr

Kenfig National Nature Reserve School Pack



Overview

Environmental education is critical in increasing access to rural green space. Bridgend has a network of environmental educators made up of teachers and outdoor education providers called Bridgend Environmental Education and Sustainability (BEES) group. Reach is a member of this network and worked with BEES to develop a programme that allows teachers to identify and access rural green space in Bridgend that they can use with their classes for educational activities. Reach identified this idea as an innovative mechanism for encouraging more use of green space in Bridgend, enabling teachers to join Bridgend Outdoor Schools and take their learners outside all year and in all weathers.

Bridgend Outdoor Schools consists of a teacher's pack and accompanying Family Activity booklet. The teacher's pack contains lesson plans linked to the curriculum and the Literacy and Numeracy Framework (LNF). This was produced for Bridgend Outdoor Schools in 2014 and is hosted on the Bridgend Natural Neighbourhoods Website at: <http://www.naturalneighbourhoods.com/learning/families.aspx> where it can be accessed for free by teachers and families.

Kenfig National Nature Reserve (KNNR) Resources

A Teacher's Pack, a Further & Higher Education Pack and accompanying Family Activity pack, have been developed for inclusion in the Bridgend Outdoor Schools project. This Teacher's Pack builds on and complements the existing materials, enabling teachers to undertake rich educational activities within the Nature Reserve without the assistance of the Warden.

Key Stage	Activity
FP	1. What lives at Kenfig?
FP	2. Making sense of Kenfig
FP	3. Pond dipping at Kenfig
FP	4. Adventurous games at Kenfig
KS2	5. The Kenfig seashore
KS2	6. Local environments at Kenfig
KS2	7. An artistic impression of Kenfig
KS2	8. Carrying out surveys about Kenfig
KS2/3	9. Kenfig 'spotting'
KS3	10. Kenfig site guide
KS3	11. Historical evidence at Kenfig
KS3	12. A Kenfig 'SatNav' trail
KS3	13. Surveys and species at Kenfig

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Risk Assessment

Schools' activities

Much outdoor learning takes place with very low levels of risk but, on occasion, risk may be at a more significant level. It is desirable to balance risks and benefits in any experience to ensure that actions are proportionate and reasonable. There is a legal requirement for a process of risk assessment to take place in many outdoor learning contexts. This is important, but we should not lose sight of the benefits to be had from the experience and the need to balance these against the risks.

When planning outdoor activities, you should consider:

1. the dangers and difficulties which may arise and how to reduce them
2. appropriate staffing
3. weather forecasts
4. tide tables (if relevant)
5. sources of appropriate technical advice
6. any relevant local authority guidance.

Each activity, when relevant, has its own more specific risk assessment in the Teacher notes relating to the activity itself. However, you will need to assess the risks associated with the actual outdoor space that you choose to use, for example a patch of poisonous plants growing near to where the learners will be undertaking activities. For further information on poisonous plants, the website www.realgardeners.co.uk/poisonousplants.htm is helpful. However, this is only in English.

To plan an outdoor activity, schools will have their own Health and Safety policies in place, as agreed with BCBC.

The site was used for training in World War II. If you find any unidentified metal objects please report it to the Warden.

A risk assessment card for KNNR can be found at:
www.field-studies-council.org/media/1645907/kenfig-nnr.pdf

Kenfig NNR has its own comprehensive risk assessment -
[Children's Education - Kenfig Nature Reserve Risk Assessment](#) .

Kenfig National Nature Reserve School Pack

Assessment against the LNF

These tables show the 'Strands', 'Elements' and 'Aspects' outlined within the LNF. Many of these could be demonstrated by learners as they carry out activities in this resource. The main focus areas are shown at the beginning of each activity.

Literacy		
Strand	Element	Aspect
Oracy across the curriculum	Developing and presenting information and ideas	Speaking
		Listening
		Collaboration and discussion
Reading across the curriculum	Locating, selecting and using information	Reading strategies
	Responding to what has been read	Comprehension
		Response and analysis
Writing across the curriculum	Organising ideas and information	Meaning, purposes, readers
		Structure and organisation
	Writing accurately	Language
		Grammar; Punctuation; Spelling; Handwriting

Numeracy	
Strand	Element
Developing numerical reasoning	Identify processes and connections
	Represent and communicate
	Review
Using number skills	Use number facts and relationships
	Fractions, decimals, percentages and ratio
	Calculate using mental and written methods
	Estimate and check
	Manage money
Using measuring skills	Length, weight/mass, capacity
	Time
	Temperature
	Area and volume; Angle and position
Using data skills	Collect and record data; Present and analyse data; Interpret results

Kenfig Inventory

Kenfig do not wish schools to bring their own equipment, especially that for pond dipping for bio-security reasons. The reserve has a range of practical equipment which can be pre-booked. These include:

- 40 good quality pond nets with trays
- A random and non-site specific pile of pond creature identification sheets
- 10 sets of 8 x 40 binoculars
- Binocular microscope
- Spotting telescope (for birds)
- Orienteering map for southern half of reserve
- General site leaflet with simple map
- 5 half metre quadrats
- Thousands of old colour slides and several hundred digital images of wildlife, plants, views and management work
- Some pooters and cheap magnifying glasses
- Small number of plastic viewing tubes for looking at insects. We need lots more.
- Old Robison moth trap and selection of identification books with some glass tubes
- Four butterfly nets
- Bird ringing nets, poles, rings etc.
- Bat detector
- Old Canon super zoom digital camera.

Please contact the Warden prior to your visit if you wish to book any of this equipment, on 01656 743386.

Foundation Phase - Activity 1



What lives at Kenfig?

Overview

The Open Air Laboratories (OPAL) network is a UK-wide citizen science initiative that allows you to get hands-on with nature, whatever your age, background or level of ability. They promote outdoor learning and the gathering and recording of scientific information. www.opalexplornature.org

Learners visit Kenfig to locate and identify living animals. They might mind map ideas about what animals are likely to be there, before visiting. Learners could download identification sheets off the internet or use the ones that Kenfig already have. They could identify animals; record numbers spotted and using the **Bug count** survey from the OPAL website, upload their findings from Kenfig.

LNF

Literacy – Reading
Numeracy – Using number skills; Using measuring skills; Using data skills

Curriculum

Knowledge and Understanding of the World; Mathematical Development

Resources:

www.opalexplornature.org

www.first-nature.com/waleswildlife/e-nnr-kenfig.php

An internet image search for 'Kenfig National Nature Reserve' will produce many images that could be used to promote discussion.

What animals do you think live at Kenfig NNR?

Learners might search online for images of Kenfig and use them to discuss and then mind map what animals they are likely to find at the reserve.

How will you identify animals you see?

Learners might search online for identification sheets for small animals and print them off. These could be taken on a visit, or the identification sheets from Kenfig could be used to help learners identify small animals that they observe.

How will you keep a record of the animals you see?

Learners might consider the best way to keep a record of their observations. They might draw a simple table and record findings using tallies, for example.

How will you use the 'Bug Count' survey?

Learners might access the '**Bug Count**' survey on the OPAL website. They could use this to record their sightings of different small animals and upload their findings for Kenfig.

Foundation Phase - Activity 2



Making sense of Kenfig

Overview

Using their senses, learners experience contrasting local environments within Kenfig, for example, seashore, woodland, wetland, pool, dunes, scrub and grassland. Within a short distance from the Reserve Centre, learners will experience habitats that they can compare through the use of the senses. For example, sand, grass, hard path - all feel different underfoot. Open area - feel breeze on face - not in wooded area, etc. Please note: learners being barefoot is not recommended for safety reasons.

Learners list what they can 'see', 'hear', 'smell' and 'feel' in different environments and are encouraged to use 'alliterative phrases' and 'rhyming words' to record their ideas. Back in school they can use their ideas as a basis for written work that depicts a specific environment at Kenfig.

LNF

Literacy – Oracy; Writing

Curriculum

Knowledge and Understanding of the World;
Language, Literacy and Communication skills;
Creative Development

Resources:

This site contains many suggestions for activities using the senses in the outdoors
<https://uk.pinterest.com/gemmaconway/outdoor-learning/>

What can I see?

Learners consider what they can see in a particular environment. They might be given parameters before a visit. For example, 2 round things, 2 spiky things, something for each colour of the rainbow and so on. They might use colour charts to consider shades of colour in nature.

What can I hear?

Learners might be blindfolded and asked to make a record of what they can hear in the environment. They could make sound recordings and listen to them back in school to identify sounds they missed whilst at Kenfig.

What can I feel?

Learners explore a particular environment by touching different things. Again they might be guided – 2 soft things, 2 rough/smooth/hard/wet etc.

What can I smell?

Learners consider what they can smell. They might be given a plastic cup to create a 'smelly cocktail' of a particular environment.

Foundation Phase - Activity 3

Pond dipping at Kenfig



Overview

Learners might consider images of ponds, using a source square, for example, as a starting point for discussions in school. Learners might be shown how to use pond dipping equipment and identification sheets in school prior to a Kenfig pond dipping visit. Learners visit Kenfig to find out what animals live in the pond. They could arrange to use the nets at Kenfig and supplement their own identification sheets with those already at the Reserve Centre. Learners could visit the pond for a dipping session and identify animals they find using the identification sheets. This is also very good for learners to share an experience with friends, work in groups in an outdoor environment and understand rules etc.

LNF

Literacy – Reading
 Numeracy – Using number skills;
 Using measuring skills; Using data skills

Curriculum

Personal and Social Development, Well-Being and Cultural Diversity; Language, Literacy and Communication Skills; Mathematical Development; Knowledge and Understanding of the World

Resources:

An internet image search for 'Pond dipping identification sheet' will produce many results that can be downloaded and printed. For example, www.earlylearninghq.org.uk/latest-resources/pond-life-check-list-spotter-sheet/ Sites such as these will provide a full guide about what to do prior and during a pond dipping visit: www.wildlife-man.co.uk/resources/pond_dipper_handout.pdf www.rbkc.gov.uk/pdf/pond_pack_2010.pdf Kenfig has about 40 good quality pond nets with trays and non-site specific pond creature identification sheets. Please do not bring your own nets for biosecurity reasons.

What is pond dipping?

A discussion about water, photographs of ponds, how dangerous (but how interesting!) water can be and so on might provide a starting point to establish what learners know about ponds and that they do not need to be scared, but do need to learn to be respectful of water. Ground rules could be developed in readiness for a pond dipping visit to Kenfig NNR.

How do we prepare for pond dipping at Kenfig?

Learners might be shown how to use equipment in school. For example, how to use nets one at a time, how to gently turn the nets inside out into a container, carefully putting all the creatures back into the pond and so on. They might also be shown identification sheets and consider how they might be used.

Foundation Phase - Activity 4

Adventurous games at Kenfig



Overview

Learners might consider what makes a game adventurous and take part in a range of small scale adventurous games outside at school prior to a visit to Kenfig. They might also look at photographs of Kenfig and consider what areas might be suitable to develop and play adventurous games. Learners develop ideas for creating an adventurous game that could be developed and played at Kenfig, which uses some of the features of the environment where it will be played. During a visit, learners use a specific environment within the reserve as a space where the game will be played – a dune bowl near the Reserve Centre might be a good starting point. Learners invent a short adventurous game and while playing games:

- consider care, respect and affection for their environment
- develop a growing interest in the world around them and understand what their environment has to offer when playing alone and with others
- understand and recognise the changes that happen to their bodies as they exercise and describe the changes to their breathing, heart rate, appearance and feelings
- develop an understanding about dangers in the outside environment.

LNF

Literacy – Oracy; Reading
Numeracy – Using number skills;
Using measuring skills; Using data skills

Curriculum

Personal and Social Development, Well-Being and Cultural Diversity; Language, Literacy and Communication Skills; Mathematical Development; Knowledge and Understanding of the World; Creative Development

Resources:

An internet image search for 'adventurous games in the outdoors' will produce results that can be explored. For example www.pdst.ie/Outdoor-and-Adventure-activities .

What is an adventurous game?

Learners consider what makes a game adventurous and are given the opportunity to participate in adventurous games in an outside environment in school. They might brainstorm ideas about what type of adventurous games could be played at Kenfig and use photographs of the reserve to help them explore ideas.

How do we create an adventurous game at Kenfig?

During a visit, learners use a specific environment within the reserve as a space where the game will be played. They are supported and encouraged to invent a short adventurous game in this space. As part of the process and while playing these games, learners are given opportunities to consider respect for the environment, using outdoor spaces and associated dangers and how exercise affects and changes the body.

Key Stage 2 - Activity 5

The Kenfig seashore



Overview	
<p>The highest point the tide reaches is the strandline. Tides leave behind sediments such as seaweed, dead and alive plants and animals and, unfortunately, litter. Several strandlines can occur on a beach due to changes in the height of the tides. Strandlines provide the main input of energy to sandy shores and intertidal habitats. They are particularly important on exposed shores, where they can act as precursors to sand dunes.</p> <p>Learners might mind map what they think the shoreline will look like and what they might find there. During a visit they might follow an aerial map to locate the seashore. Encourage learners to explore the ideas outlined under the questions below and to compare this environment with, for example, the school grounds. Learners might be encouraged to write a report or an article about their findings and contact local media etc.</p>	
LNF	Curriculum
Literacy – Oracy; Writing Numeracy – Using measuring skills, Using data skills	Science – Interdependence of organisms 4-7 Geography – Locating places, environments and patterns; Understanding places, environments and processes
<p>Resources: www.wildlifetrusts.org/wildlife/habitats/beaches-and-shorelines https://ypte.org.uk/factsheets/seashore/the-rocky-shore www.theseashore.org.uk/</p>	

Where is the strandline?

Learners consider the evidence, distance from the sea, how it might be measured and so on. Explore the materials in the strandline and what this tells them.

What bodies of water do you see?

Consider the visible water; describe, what it is called, what might be living in it, why is it here, how it might have been formed, what might be visible beyond the water.

What different materials are there on this seashore/beach?

Consider what materials are natural and made, how they came to be there, where the sand comes from, what it was before, what sea shells are, where they come from, and so on.

What is growing on the seashore/beach?

Consider what plants are growing on the seashore, what is known about these plants, the different types of seaweed visible, what sea shells are, where they come from etc.

What are the natural and human features you can see?

How this environment might have changed over time, what might caused the changes and what consequences there might be as a result.

Key Stage 2 - Activity 6

Local environments at Kenfig



Overview

Through fieldwork, learners have the opportunity to study contrasting local environments. Kenfig has a range of environments, for example, woodland, wetland, pool, dunes, scrub and grassland. Groups of learners might select or be allocated an environment prior to visiting and use aerial images and maps to locate the environment they will study when at Kenfig.

The questions and ideas below might help you and the learners plan and carry out an environment study at Kenfig.

LNF

Literacy – Reading
Numeracy – Using measuring skills, Using data skills

Curriculum

Science – Interdependence of organisms
Geography – Locating places, environments and patterns; Understanding places, environments and processes; Investigating; Communicating

Resources: www.everyschool.co.uk/science-key-stage-2-habitats.html
www.bbc.co.uk/bitesize/ks2/science/living_things/plant_animal_habitats/read/1/
www.hamilton-trust.org.uk/browse/science/y5/living-things-and-their-habitats-year-5/109740

What plants and animals live in this environment?

Identification of plants and animals; where they are in the environment; what the animals eat; what their life cycle might be; etc.

How are the plants and animals in this environment dependent on each other?

How the plants and animals in this environment are interdependent, how they fit into food chains that exist in the environment, what are the predators and prey, etc.

What environmental factors affect what lives and grows in this environment?

What environmental factors are prevalent in the environment; how much water is available; is the environment in direct sunlight; is it exposed to the weather and so on.

How do humans affect this environment?

In what capacity do humans enter this environment; is their effect positive or negative; is there litter; is there any water pollution in the water sources; is there any noise or light pollution, etc.

Key Stage 2 - Activity 7

An artistic impression of Kenfig



Overview

Most landscape artists use a particular place or type of scenery as an inspiration for their landscape art work. In this activity, learners initially look at photographs and art work based on the theme of Kenfig National Nature Reserve. They might consider what they like, or dislike, how features have been portrayed and so on and use these ideas as a basis for gathering information during a visit. Learners visit Kenfig and use the reserve as an inspiration for an art work. They might take photographs, create sketches, etc. and use these back in school to create a piece of art work. This could be displayed at the Reserve Centre or in a local gallery, for example.

LNF

Literacy – Reading
Numeracy – Using measuring skills, Using data skills

Curriculum

Art – Understanding; Investigating; Making

Resources:

An internet image search for 'Kenfig paintings' or 'Kenfig National Nature Reserve paintings' will produce many photographs and art work that can be used as a basis to promote discussion for this activity.

www.finearttips.com/2014/09/6-ways-to-create-depth-in-your-landscape-painting/
<http://painting.about.com/od/landscapes/ss/depth-landscape-painting.htm>

What features do you observe in the photographs and paintings?

Learners could use a source square to explore what can be seen and inferred. When the photos/paintings might have been created; what the inspiration might be behind the works.

What ideas will you investigate?

What questions they might have about Kenfig or the works; what information learners might require via research prior to a visit.

What information will you gather on a visit?

How learners might plan a visit, the equipment they could need to take; what photographs might they need to take and what drawings or sketches they might need to keep a record of ideas.

How will you create an art work?

How learners will use their gathered information and photographs and drawings to create their art work. How they will make use of lines; tone; colour; pattern; texture and so on in their work. How learners will look to display their outcomes in a local gallery or at the Kenfig Reserve Centre.

Key Stage 2 - Activity 8

Carrying out surveys of Kenfig



Overview

The Open Air Laboratories (OPAL) network is a UK-wide citizen science initiative that allows you to get hands-on with nature, whatever your age, background or level of ability. They promote outdoor learning and the gathering and recording of scientific information.

www.opalexplornature.org

Learners visit Kenfig to carry out one of four surveys from the OPAL website. They could carry out a Tree Health survey; a Biodiversity survey; a Water survey or the Air survey and upload their findings from Kenfig. A class could be split into four groups with each group carrying out one survey and reporting findings to peers. Learners might consider what they think each survey is about and what they might find out.

LNF

Literacy – Reading
Numeracy – Using number skills; Using measuring skills; Using data skills

Curriculum

Science – Interdependence of organisms
ICT – Find and analyse information; Create and communicate information

Resources:

www.opalexplornature.org

www.first-nature.com/waleswildlife/e-nnr-kenfig.php

An internet image search for 'Kenfig National Nature Reserve' will produce many images that could be used to promote discussion.

What do you think you will find out at Kenfig?

Learners might search online for images of Kenfig and use them to consider what they might find out from carrying out a survey at the reserve.

What do you think the purpose of these surveys is?

Learners might consider what terms such as 'biodiversity' mean and how a survey might determine how healthy a tree is. Search online for images of Kenfig and use them to consider what they might find out from carrying out a survey at the reserve.

How will you use the survey?

Learners might access the 'Tree Health', 'Biodiversity', 'Water' or 'Air' survey from the OPAL website. They could use this to record and upload their findings for Kenfig.

Key Stage 2 / 3 - Activity 9

Kenfig 'spotting'



Overview

Learners might consider images of Kenfig, using a source square, for example, as a starting point for discussions in school. They might consider the different environments within Kenfig and the birds they might see. Learners might be shown how to use binoculars and bird identification books/sheets in school prior to visiting Kenfig for a bird spotting session. Learners would visit Kenfig with the purpose of finding out what birds live or visit the reserve. They could arrange to use the binoculars and 'Spotting telescope' at Kenfig and take along bird identification books/sheets from school or a local library. Learners could visit the reserve for a 'Spotting' session and identify birds they observe using their resources. They could also capture images to take back to school for identification or further research or possibly upload photos to 'I-spot' if they photograph a bird that can't be identified.

LNF

Literacy - Reading
Numeracy - Using data skills

Curriculum

Science – Interdependence of organisms
ICT – Find and analyse information; Create and communicate information

Resources:

An internet image search for 'identifying birds' will produce many results that can be used to help learners identify birds. For example, www.birdid.co.uk/ and www.first-nature.com/birds/

Sites such as these provide bird spotting guidance:

www.rspb.org.uk/discoverandenjoynature/families/children/

www.birdwatching.com/tips/kids_birding.html

<http://goexplorenature.com/2011/02/9-tips-for-bird-watching-with-kids.html>

www.birds.cornell.edu/education/kids

Kenfig has about 10 good quality pairs of binoculars and one spotting telescope.

What is bird spotting?

Learners might explore maps and images of Kenfig and consider the types of birds they might locate in different environments. Why do people 'spot' birds, what can be learned from bird spotting, ringing birds and so on.

How do we prepare for bird spotting at Kenfig?

Learners might be shown how to use equipment in school, for example, how to use binoculars. They might also locate bird identification resources and explore bird spotting guidance from books or online.

Key Stage 3 - Activity 10

Kenfig site guide



Overview

Learners create a 'site guide' for Kenfig. This will inform teachers and learners what this place is like and what they can expect to find here. Schools, parents or even tourists could use a guide like this to help them plan a day out at Kenfig National Nature reserve. Learners could carry out their research and gather relevant information at Kenfig and create the 'site guide' back in school.

LNF

Literacy – Writing
Numeracy – Using number skills; Using data skills

Curriculum

Geography – Locating places, environments and patterns; Understanding places, environments and processes; Investigating; Communicating

Resources:

www.first-nature.com/waleswildlife/e-nnr-kenfig.php

<http://kenfignr.blogspot.co.uk/p/ecology.html>

<http://bees.bridgend.gov.uk/bees-partners/bees-partners-english/kenfig-national-nature-reserve.aspx>

The ideas below might help you to focus on the task of gathering information.

1. You might consider including ideas about:
 - The area
 - The location and its O.S. Grid Reference
 - Type of location
 - What features does the location have? – e.g. sea cliffs, town seafront, sandy shore, rock pools, industrial background etc.
2. You could:
 - Write a brief description of the site
 - Make a sketch of the site
 - Make a record of wildlife observed.
3. You might also refer to:
 - Access and parking
 - Contact details of warden/owner/keeper
 - What it is suitable for - seabird study, rock pool study, etc.
 - Facilities – cafe, toilets, etc.
 - Safety Issues.

Key Stage 3 - Activity 11

Historical evidence at Kenfig



Overview

Learners carry out a historical research enquiry about Kenfig. Initially, learners might research the history of Kenfig and explore images, for example, of shipwrecks that have occurred there over the last century. They might look at maps and plan how and where they will locate present day evidence of these wrecks on the seashore within the reserve. Historical societies in Bridgend have a keen interest in Kenfig and there are several websites with information about the history of Kenfig and the Nature Reserve. Learners could carry out historical research and then visit Kenfig, take photographs and make sketches and notes to use for comparison. Outcomes might include a display board comparing past and present for the Reserve Centre or an online article for a historical society.

LNF

Literacy – Reading; Writing
Numeracy – Using data skills

Curriculum

History – Geography – Locating places, environments and patterns; Understanding places, environments and processes; Investigating; Communicating

Resources:

An internet search for 'History of Kenfig National Nature Reserve' will produce many results that learners could use for research. A similar image search will provide historical and present day images of Kenfig and the remains of shipwrecks.

www.channel4.com/programmes/time-team/articles/all/kenfig-national-nature-reserve

www.first-nature.com/waleswildlife/e-nnr-kenfig.php

<https://kenfigorg.wordpress.com/kenfig-national-nature-reserve/>

What can we find out about the history of Kenfig?

Finding out about Kenfig NNR from online research - learners might locate historical and present day articles and images of Kenfig. These might be used to plan a visit to Kenfig and a consideration of how and where more evidence could be gathered.

How will we locate evidence at Kenfig?

Learners might consider how they will follow plans and maps to look for present day evidence of, for example, the ships wrecked on the seashore. They might take photographs of the industrial background and other aspects of Kenfig that could be used to compare to images and words they have describing Kenfig in the past.

How will we use the evidence gathered?

Learners might use their research and gathered evidence from Kenfig to create a 'past and present' display that could be put up in the Reserve Centre or they might develop articles that could be sent to local societies for their websites.

Key Stage 3 - Activity 12

A Kenfig 'Sat Nav'



Overview	
<p>Learners explore images of Kenfig and consider what it might look like from the air. They locate and consider aerial maps and satellite images of Kenfig. Learners use these resources to plan a walk around Kenfig, estimating the distance and predicting what will be observable during the walk along this trail. During a visit to Kenfig, learners follow their planned trail and make notes of directions, distances and interesting features along the way. This might include, for example, a plant, a view or geographical feature, or a quiz element could be added. In school, learners use their maps and notes to create a voice recording of their 'Kenfig trail'. This might provide instructions and ask questions of the audience. They might look into making these 'Sat Nav' style audio files available to BCBC for visitors to Kenfig to download prior or during a visit – enabling a 'guided walk' around a particular part of the reserve.</p>	
LNF	Curriculum
Literacy – Oracy; Reading; Writing Numeracy – Using number skills; Using measuring skills; Using data skills	Geography – Locating places, environments and patterns; Understanding places, environments and processes; Investigating; Communicating ICT – Find and analyse information; Create and communicate information
Resources:	
An internet search for 'aerial images of Kenfig National Nature Reserve' will produce many results that learners could use for research. For example: www.first-nature.com/waleswildlife/e-nnr-kenfig.php https://kenfigorg.wordpress.com/kenfig-national-nature-reserve/ An online map search with the Kenfig postcode (CF33 4PT) will also provide an interactive map and satellite images of Kenfig.	

What does Kenfig look like and contain?

Finding out about Kenfig NNR from online research - learners might locate photographs and aerial maps and satellite images. These might be used to plan a specific walking trail around a particular part of the reserve, for example, from the Reserve Centre to the beach. This plan could include directions, distances and notable things that might be viewed on route.

How will we use our visit to Kenfig?

Learners use their plan to follow their trail and take photographs and make notes of distances, directions and notable features – plants, animals, features, views and so on. They could also develop questions that could be asked of anyone following the trail.

How will we use the evidence gathered?

The information gathered is used to confirm/amend and add to the planned trail. Learners record a 'Sat Nav' style audio file of the final route and explore how this could be made available to Kenfig visitors.

Key Stage 3 - Activity 13

Surveys and species at Kenfig



Overview

The Open Air Laboratories (OPAL) network is a UK-wide citizen science initiative that allows you to get hands-on with nature, whatever your age, background or level of ability. They promote outdoor learning and the gathering and recording of scientific information. www.opalexplornature.org

Learners visit Kenfig to carry out a 'Soil and earthworm survey' from the OPAL website and upload their findings. Learners might consider what they think the survey is trying to find out and what information they are likely to be gathering. During a visit to Kenfig, learners might undertake the survey and also be involved in locating and photographing interesting species of living things. These can be uploaded to 'i-spot' on the OPAL website for experts to identify.

LNF

Literacy – Reading
Numeracy – Using number skills;
Using measuring skills; Using
data skills

Curriculum

Science – Interdependence of organisms
ICT – Find and analyse information; Create and
communicate information

Resources:

www.opalexplornature.org

www.first-nature.com/waleswildlife/e-nnr-kenfig.php

An internet image search for 'Kenfig National Nature Reserve' will produce many images that could be used to promote discussion.

What do you think you will find out at Kenfig?

Learners might search online for images of Kenfig and use them to consider what they might find out from carrying out a survey at the reserve.

What do you think the purpose of this survey is?

Learners might consider what they might need to do at Kenfig; what a 'Soil and earthworm survey' is likely to entail; the information they might need to gather and record.

How will you use the survey?

Learners might access the Soil and earthworm survey from the OPAL website. They could use this to record and upload their findings for Kenfig.