

Resources for our Bay
Place, Sustainability, Environment and Hope



Acknowledgements

The **Morecambe Bay Curriculum** is an educator-led movement, supported by Lancaster University, Lancaster and Morecambe College, University of Cumbria and the Eden Project.

Thank you to everyone who made this work possible!

With thanks to the Morecambe Bay Curriculum Working Groups, Steering Group and Partnership Board for all their support

Thank you to all the schools and colleges who have released teachers to be part of this work including The Cathedral Catholic Primary School, Greengate Junior School, Kirkbie Kendal School, The Lakes School, Lancaster and Morecambe College, Lancaster Royal Grammar School, Lancaster University Pre-School Centre, Myerscough College, Overton St Helen's Church of England Primary School, Queen Elizabeth School, Ripley St Thomas Church of England Academy, Sandgate School, South Walney Infant and Nursery School, Willow Lane Primary School

Thank you to the educators and teachers who have brought so much passion and expertise to this work

Thank you to Lancaster University academic colleagues for bringing your research and curiosity to the project

Thank you to the Morecambe Bay Curriculum team for bringing this work together

Funded by



With additional support from







This booklet is dedicated to the memory of our friend and colleague **Dr Alison Wilkinson**.



Foreword

Our Partnership Board is delighted to support this educator-led movement. Teachers around the Bay continue to forge a new way of delivering education focused on place, environment and sustainability. We are proud to be part of this important work, it is a testament to what we can achieve when we work together. Thank you to all the educators and academics who have worked tirelessly on these materials, we hope that they inspire other colleagues to join the MBC movement so that we can collectively continue to make a difference to the Bay and the planet.









During my time as Chair of the MBC Partnership Board, colleagues at Lancaster University, Lancaster and Morecambe College, University of Cumbria and Eden Project have been inspired by the extraordinary work which teachers are doing to empower young people to learn about the Bay and develop the skills to care for it.

I know from conversations with teachers how important it is to have relevant, relatable and reliable environmental knowledge when discussing climate, sustainability and nature. I hope that the resources in this pack support this important work to continue in classrooms across the whole of the Bay. Lancaster University is dedicated to its civic commitments and to working with partners and communities to make a positive difference in our region. The work in this booklet has allowed academic colleagues to take the place-based and environmental research and knowledge they have discovered, applied and advanced at Lancaster University and translate it for local age-appropriate educational settings through co-design with local educators. It is fantastic to see colleagues from the Environment Centre, Geography, History, Educational Research, Psychology, Art and Design, Architecture, Engineering and Politics, Philosophy and Religion coming together, to support this project working closely with the brilliant teachers they have been paired with.

I was proud to see the MBC recognised by the Key Cities network as a force for cultural change as we move nationally towards net zero. This is a testament to the energy all partners, educators, community members and colleagues have put into bringing the MBC into being. This is a very special and unique project and we are still at the beginning. We hope you will continue with us on this journey!

Prof Sarah Kemp

Pro-Vice Chancellor, Engagement, Lancaster University

Lancaster & Morecambe College is extremely proud to be a founding partner of such a fantastic project that continues to have an amazing impact on our curriculum and the experience for students. The genuine collaboration at the heart of the MBC has resulted in professionals across all facets of education coming together to develop a range of excellent resources that highlight the wonders of our natural world and how changes to behaviours can positively influence our approach to sustainability. We are proud to be part of this work and will continue to embed with present and future learners.

Daniel Braithwaite

Principal and CEO of Lanaster and Morecambe College

The Morecambe Bay Curriculum

Together, we are exploring how we can weave sustainability and place into everyday teaching around Morecambe Bay, so that every young person can feel empowered to be a change-maker.

The Morecambe Bay Curriculum aims to ensure that the different stages of the education system, from early years to further education, provide the green skills, knowledge, and behaviours required by businesses and our communities to respond to climate emergencies. The Morecambe Bay Curriculum is supported and delivered by teachers, early years practitioners, researchers, health professionals and community leaders who recognise that a collective approach is critical to tackling the climate emergency and creating opportunities for young people.

The heart of the Morecambe Bay Curriculum is the community of educators, who together curate the content and bring the project to life at a grassroots level. Children and young people explore the themes of environment, sustainability and place using the ecosystems surrounding the Bay as a classroom. Teachers around the Bay are focused on wellbeing, careers and community pride to encourage and empower young people to see the tangible positive change their actions make to the environment.

In recognition of this exciting work, Lancaster University, Lancaster and Morecambe College, the University of Cumbria and the Eden Project have formed a Partnership Board. Collectively these organisations are committing time and resourses to work with the MBC community to delevlop the curriculum. Together they hope to empower educators and young people, as this work continues to grow.



Resources and Support for Teachers

The work in this pack has been developed as a result of educator-led working groups identifying two key barriers to delivering place-based sustainability teaching:

- Educators often don't have access to the reliable, accurate and contemporary place-based or sustainability-focused knowledge they need to weave these themes into day-to-day teaching.
- Discussing climate change in the classroom can be anxiety-inducing for pupils and teachers. Educators need the support and confidence to deliver this material in a hopeful way that helps pupils see how they can make a difference.

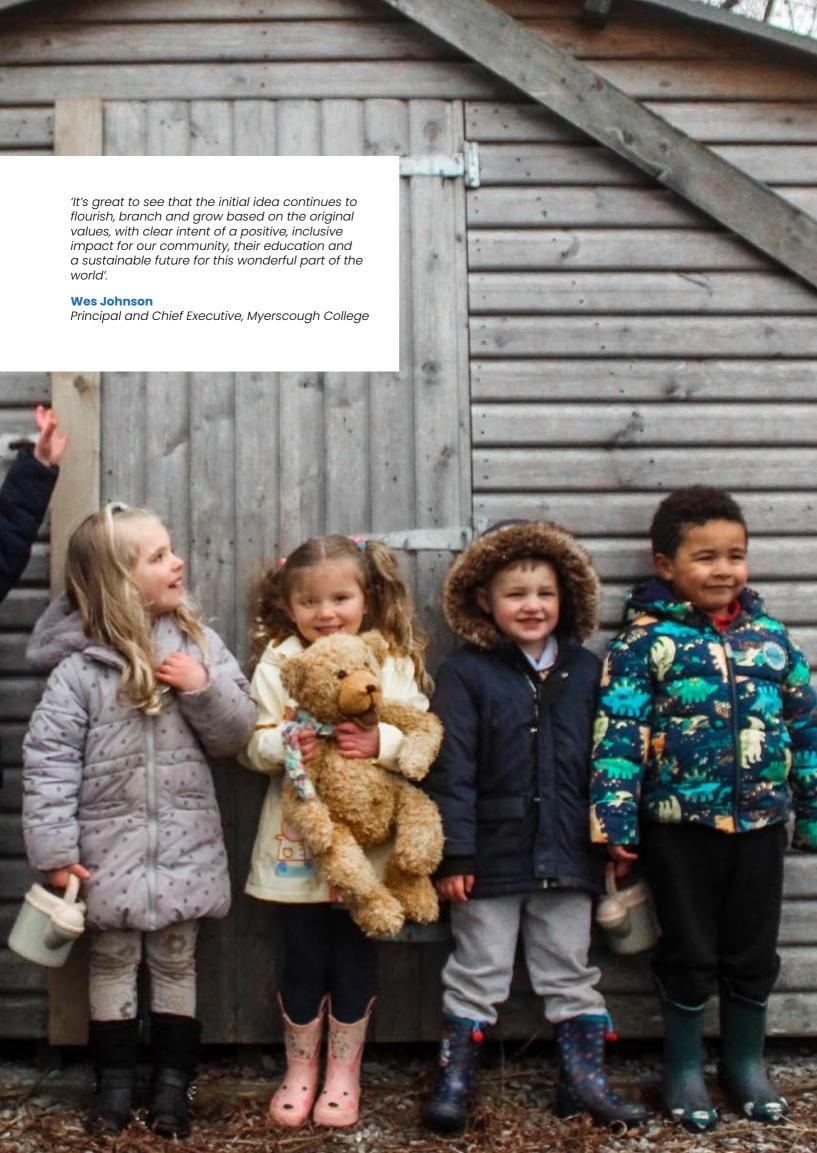
Collectively, teachers, partners and colleagues started to discuss how academics with research focused on place, environment and sustainability might be able to support educators to feel more confident addressing these challenges. It was important that any resources be co-designed to ensure academics could bring their subject knowledge and teachers could bring throwledge of pedagogy and context. The result is this booklet and the linked physical and online resources. We hope that they are useful and can act as further inspiration for those wanting to embed these themes into their teaching.

Joining the Morecambe Bay Curriculum membership is FREE for teachers around the Bay. If you feel inspired by this work and would like to access the full range of accompanying digital resources, sign up on the MBC website and you will be able to access the MBC Moodle, our online hub. As a member of the MBC community you will also receive monthly newsletters, networking opportunities, training, support and more.

The Morecambe Bay Curriculum is a movement as unique as the Bay itself and the people who live around it. This is just the beginning. Join your colleagues from around the Bay, become a member of the MBC and be part of the change.



We hope you enjoy these resources and that we'll see you at an MBC event soon! Scan the QR code to join the MBC community.





Head, Heart and Hands: Pedagogy and the Morecambe Bay Curriculum

Dr Bethan Garrett, Educational Research, Lancaster University

A classroom, be it indoor or outdoor, is a complex place and teaching is a complex activity. Despite current debates, which seem to suggest that we can either teach knowledge through direct instruction or skills through experiential methods, education cannot, and indeed should not, be reduced to a single approach. This section outlines the flexible pedagogical thinking which underpins the MBC in order to avoid dichotomous either/or debates and instead embrace the richness which a more responsive and nuanced view can allow.

The pedagogical approaches that we draw upon as educators are influenced by many factors, including teachers' own beliefs, values and experiences; the institutional cultures of schools; and the wider sociopolitical contexts. As such, there is never one single answer as to which pedagogy is appropriate for a specific group of learners and these issues are always up for debate! We recognise the expertise that teachers around the Bay bring to their work. The aim of this booklet is not to dictate one single approach. Instead we utilise the head, heart and hands framework, which can connect with a range of methods, driven by the ultimate purpose of empowering young people to become changemakers.

Education is a great place to start to influence culture, values and behaviours but this requires us to unpack:

- · How young people can develop deep and real understanding of place-based and environmental issues.
- · Resilience and how to support learners in adapting to change and uncertainty.
- · Problem-solving, imagination and creativity.
- · Best practice when embedding a locally focused values-driven approach.
- \cdot How conversations can best centre hope and optimism.

We have designed our resources around the Head (knowledge), Heart (values) and Hands (skills) framework, to link these ideas together in a way which promotes a range of pedagogical approaches. The teaching of subject knowledge associated with environmental issues can therefore be blended with active and experiential approaches. Each set of resources has been designed to include activities appropriate to an age phase and setting, focusing on prioritising pupils' wellbeing, the common good for society and the environment. Gaining the foundational knowledge, exploring this within local contexts and connecting this to the development of positive values and behaviours ensures that the education we provide is relevant, engaging and speaks to the lives of children and young people around the Bay.



Our current educational context in England is one which prioritises knowledge, be that propositional (knowing that), procedural (knowing how) or powerful (relevant to their lives and futures). To support teachers with the knowledge element, we have drawn on the in-depth research and expertise from academics across Lancaster University. This work spans the arts, humanities and sciences and importantly is both evidence-informed and rooted in local places.

Knowledge is foregrounded in each of the contributions. We have shared information about key concepts as well as further links to online resources which can support and inspire your thinking. We have all learnt from being part of this project and wish to share our newfound knowledge with you.



Arguably this is the most fundamental aim of the MBC and must be at the heart of everything we do. Developing an emotional connection to our place and locality is key to supporting changes in values and behaviours. It allows learners to make moral and ethical decisions about their actions and choices, based on the environmental knowledge they have gained. Thinking big, pupils can become advocates for their environment, sharing what they have learnt with their families and potentially taking this into their future jobs and communities. As such, our approach prioritises care and empathy, as learners make their own personal and collaborative connections with the



Environmental education recognises that the problems we face, both now and in the future, may be complex. As such, pupils need to develop the skills needed to consider solutions which may not be straightforward, and which may require localised, contextual applications of their conceptual knowledge. This is evident within some of the curriculum outputs, which encourage learners to think creatively and draw upon interdisciplinary knowledge to approach real-life challenges.

This could involve working collaboratively as a team, engaging business and community organisations and seeking innovative solutions to open-ended problems.

Why this work matters!

The MBC is an ambitious undertaking but we hope that by providing examples, linked to formal curriculum expectations, we can empower educators to take risks, develop new knowledge and make a positive contribution.

Together we can:

- · Share expert knowledge that extends and enhances the curriculum.
- · Immerse ourselves and our pupils in the unique features of our local area and its history.
- · Develop creative, collaborative and critical thinking skills to seek solutions to complex problems.

- · Connect abstract environmental concepts with local issues and priorities.
- · Encourage everyone to love and care for the Bay.

The MBC's vision is, and always has been, to support and empower educators. The collaborations between teachers and academics have inspired them to think more deeply about environmental and place-based issues and we hope their work will encourage you to do the same. In this way, we can make a positive difference to young people around the Bay, both today and in the future. Take these resources, adapt them, run with them and celebrate all that is special about our beautiful locality!

The Curriculum Co-design Process

Co-designing curriculum resources has been an ambitious project which began in late 2023, when our steering group of educators came together to select which subjects would be prioritised.

Academics from a range of disciplines were paired with teachers who had similar interests and were keen to work together. This partnership ensured each person could contribute to a collaborative endeavour which aimed to enhance and enrich the curriculum for one specific subject and age phase. The result is a set of exciting and innovative resources which offer opportunities for localised, place-based teaching and learning.

Workshops

The process of building and supporting these collaborations between teachers and academics has been achieved with the guidance of Dr David Perez, from Imagination Lancaster at Lancaster University. His expertise in bringing together diverse groups and ensuring productive and mutually beneficial relationships has been extremely valuable. Fundamentally, it is these collaborative partnerships which have driven and inspired this project, so we needed to ensure they were well supported. The codesign process consisted of two in person workshops and three days of collaboration time for academics and teachers.

During the introductory event, co-designers met for the first time and were inspired by talks from experts in the field. The teams worked together on activities designed to help each partner share what mattered most to them concerning teaching, learning, place and environment. This event allowed teams to get to know each other and explore how they wanted to work together going forward.

In March we reconvened all the teams, to share their ideas and collaborate further. Each pair produced a presentation and exhibited a poster summarising their ideas. This provided the opportunity for everyone to collaborate and contribute, sharing suggestions and ideas on how each team could further adapt or develop their activities.

Inspirational talks and panel discussion with:

- · Sam Kendall and Bran Howell, Eden Project Education Team.
- · Jamie Victoria, the Childcare Guru, Former OFSTED inspector.
- · Rachel Tomlinson, Local headteacher who has embedded the UN sustainability goals into her school's curriculum.
- · Heena Dave and Prof Leigh Hoath, Climate Adapted Pathways for Education.



Example of co-design tools used during workshops

What does sustainability and place mean to you?

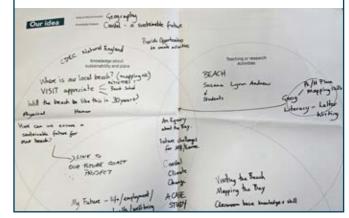
This encouraged open-ended discussion to capture initial thoughts.

What expertise do you bring to the collaborative process?

This provided an opportunity to share prior knowledge and experience.

What are your initial ideas?

This was a chance to mindmap and start to develop some possible themes for the content, synthesising the previous discussions.

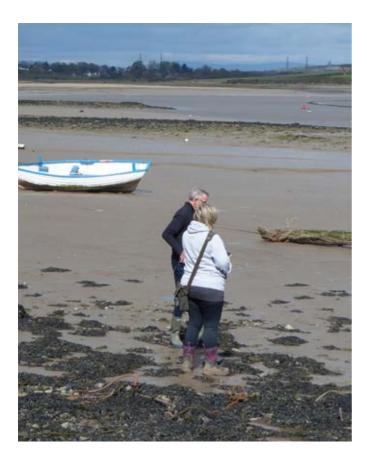




Independent work

Outside of the workshops the educator-academic teams were able to take control of how they approached the project. Collaborations could take place in person or online, resource writing tasks could be allocated and, in some cases, field trips to specific locations around the Bay could be undertaken. Teachers were keen to trial activities with their own classes and our SEND advisor focused on ensuring these activities could be adapted for accessibility purposes.

We are indebted to everyone who has given up their time to be part of the project and look forward to hearing about how these resources are used in the future.

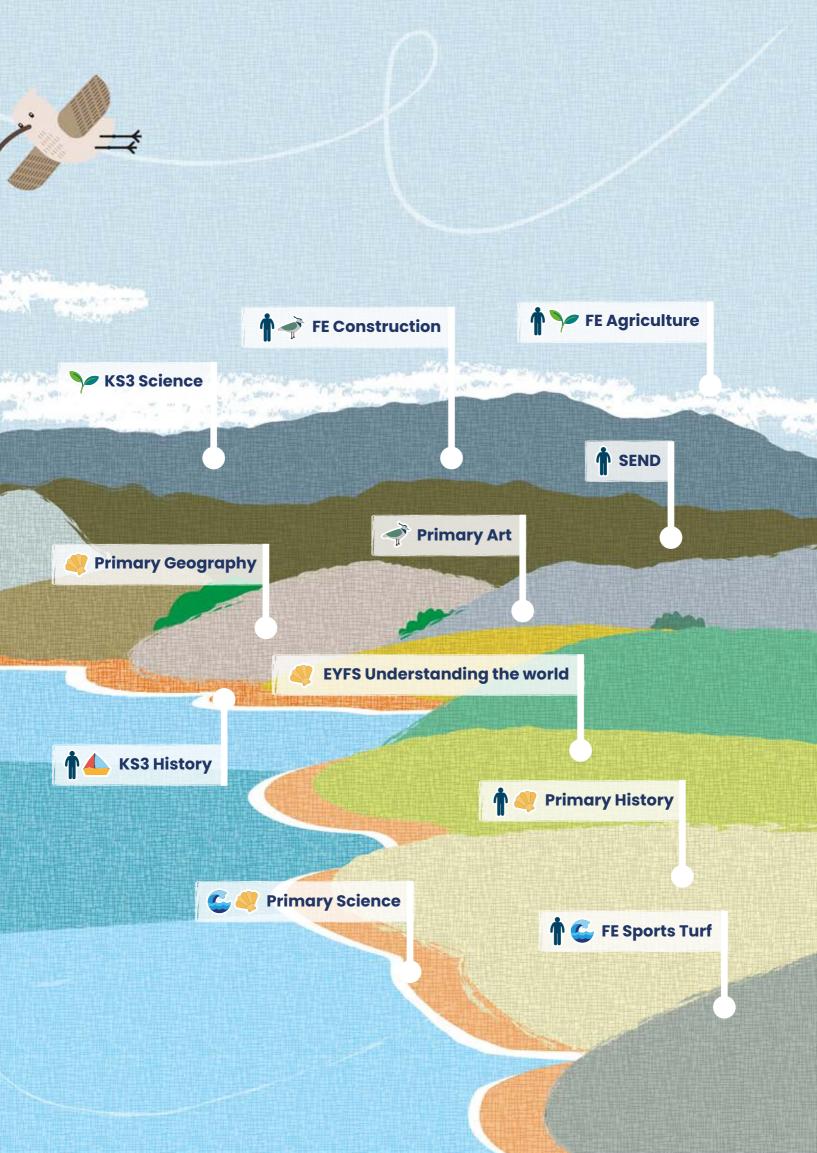


Bringing the work to life

Over to you! For anyone enjoying this booklet and exploring the resources that have been created, we want to understand how you have found them useful. Please use the QR coe at the end of this booklet to complete a short evaluation. If you are interested in future co-design work, join the MBC membership and look out for further opportunities!







Research informed teaching resources

Below you'll find fascinating insights into each of the co-designed project resources. They act as a starting point to weave sustainability and place into your setting. The materials to inspire, plan, teach and adapt this work can be found on the MBC Moodle.

EYFS

Understanding the World

Little Bay Explorers

Understanding the world through curiosity and wonder



During your trip into a world of curiosity and wonder, you'll meet our local MBC dog, Baxter. He wants to take you and your learners on an exploration of local natural environments and blue and green spaces in the Bay.

Whilst you enrich and widen children's vocabulary, you'll also be fostering positive connections to nature and pride in place. Whilst exploring coastal habitats, you'll meet animals and local communities, experience local ecology and learn about tidal changes.



EYFS

world around them.

Expressive Arts and Design

Near and Far, High and Tiny Looking and Listening in our Bay

Why not go on a journey to discover our natural world through the perspectives of others? In this resource you will enable your learners to think in "more-than-human" ways. Delve into art and nature to help make meaningful connections with the

Allow your learners to discuss and respond to diverse art to inspire their thinking and creativity. Children will make personal connections with their locality whilst engaging in expressive art practice that promotes kinship with their environment.



SEND

Adapting the Resources to the Needs of all Learners



Environmental and place-based learning is for everyone and we are committed to ensuring that all learners from around the Bay can access this. Find out more about the importance of inclusion and gain some practical advice about how to adapt your plans to the needs of all students.



Primary Geography

A Day at the Beach Present and Future



This resource helps you take trips to the beach, exploring the present and imagining the hopeful future.

This resource fosters great connections between you, your class and the environment. There are fantastic opportunities for children to ask questions and for classes to learn together. These beach visits help secure the learners' knowledge of marine ecology whilst encouraging care and responsibility for their local beach.



Primary History

The King's Guide to the Sands



The sands of Morecambe Bay are rich with stories. The acquisition of landscape literacy, like alphabetic literacy, can nurture students intellectually and imaginatively. As your learners develop their understanding of the King's Guide's role, they will recognise local landscapes, historical monarchs, industry and infrastructure.

Your learners will uncover our connection to people and places by viewing, reading and listening to accounts of people from Morecambe Bay through history.



PrimaryScience

Rhythms of the Bay Living Things and Their Habitats



Dive into this resource rooted in the planetary and natural rhythms of Morecambe Bay to explore how the moon affects our tides.

By observing, identifying and naming local flora and fauna and cycles of local habitats, your learners will explore the Bay's natural classroom!



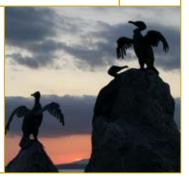
Primary

The Birds of Morecambe BayTeaching Science Through Art in Year 4



Did you know that Morecambe Bay is one of the top three UK sites for overwintering birds? Its mudflats, salt marshes and sands are internationally important habitats. This resource focuses on twelve birds and their beaks, feet, habitats, food sources, migration and birdsong.

Featuring sound waves, migration and representations of nature, learners will strengthen their emotional connection to local wildlife.



KS3 History

What have Colonialism and Empire got to do with Sustainability and Development?



This resource will engage with the contemporary debates in the UK around reparations, loss and damage, repatriation of indigenous artefacts and apologies for past imperial and colonial actions.

By reflecting on the past, we can teach a generation to build meaningful bridges between communities and move forward to face the climate crisis together.



KS3 PSHE

Wellbeing and Blue Spaces Using creative methods to explore connections to blue spaces and build resilience



Spending time outdoors and near water can help with enhancing wellbeing and resilience. This foundational PSHE series explores the research behind blue spaces ensuring that your learners are in a better position to understand more fully the positive impacts which nature can have on their lives.



KS3 Design Technology

Flight Investigations Curlews vs the Airbus Air380-800



This resource offers a comparison between the Eurasian Curlew, Britain's highest conservation priority bird species, and the Airbus A380-800, the world's largest commercial airliner.

Explore biomimicry, the principles of flight and the sustainability of aircraft design, to understand how humans can create solutions that care for our planet.



KS3 Science

Making Plants Pop

Weaving Local Plant Knowledge into your Teaching



Teachers can empower students by informing them of their local environmental heritage and bridging the plant awareness gap. This resource helps us notice the plant life around us, expanding ecological knowledge in our learners. It also brings careers in botany, ecology, and environmental management to the fore.



KS3 Geography

Energy Generation or Energy Conservation?Which method is the future for Morecambe Bay?



The Morecambe Bay Tidal Barrage is described as a 'vital step in getting us closer to a greener, safer, fairer future' but is it the best solution for our community?

Your learners will be challenged to synthesise research on two pathways – the tidal barrage proposal and retro-fitting energy saving solutions. The resource challenges common assumptions through the lens of fairness and equity.



FE

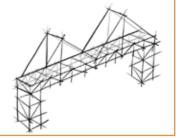
Construction

Sustainable Construction and Biomimicry



Biomimicry can be used as a framework for learning and applying construction skills. This interdisciplinary approach ties together local nature with sustainable building practices.

As they study Common Orb Spiders and Reed Warblers, your learners will gain practical skills and foster a sense of place, purpose and pride.



FE

Eco-Tourism

Eco Tourism

A Comparative Study of Local, National and Global Tourist Locations



This resource takes you to Eden Project Morecambe, Penzance and Bwindi, Uganda. As you metaphorically fly off to these destinations you will gain insight into how tourism can enhance and damage the locality, both socially and environmentally.

Your learners will identify and develop the values they wish to promote and explore how their behaviours impact the environment.



r**e** Aariculture

Understanding the impact of food choices Investigating Carbon and Water Footprints



How can consumers better understand the environmental impact of their food choices?

Scientific knowledge underpins the research learners undertake, enabling them to consider other people, animals and nature when making decisions.



Sports Tur

Flood Risk in Sports Turf Level 3

Climate Change Adaptation (Measures) and Mitigation (Action)



Flooding is impacting college grounds, resulting in sports postponements and cancellations. How can we mitigate this, adapt our grounds and be more prepared?

By creating real-life risk assessments, learners are encouraged to be solution-focused when tackling the symptoms of climate change.



Local Support Directory

We are very lucky to have lots of inspiring organisations based around the Bay who are excited to support educators to embed the themes of environment, sustainability and place into their day-to-day teaching. Here are a few we think educators might like to know more about:



Blue Influencers Scheme

https://ernestcooktrust.org.uk/what-we-do/influencers-scheme/

With support from a Blue Mentor and access to funding, young people aged 10-14 will have the opportunity to tackle the local, social and environmental issues that affect them and their Blue Spaces. There are four Blue Mentors across the Bay, hosted at CDEC, Morecambe Bay Partnership, Global Link and the Lancashire Wildlife Trust.



Cumbria Development Education Centre (CDEC)

https://cdec.org.uk

CDEC works with schools on 'global learning'. Teachers can develop tools and approaches to support young people, through global learning experiences, to become informed, responsible and active global citizens to build a fairer and more sustainable world.



Cumbria People and Nature Network (CPNN)

http://cumbriapnn.org/

CPPN brings together organisations from across Cumbria who share an interest in the people and nature agenda. It aims to develop relationships, collaboration and opportunities by sharing best practice, information and resources.



Escape 2 Make (E2M)

https://escape2make.org

E2M provides fun, free workshops for young people across Lancaster and Morecambe. These sessions celebrate creativity in the local area in all its wonderful forms, such as: filmmaking, textiles, creative writing, painting, bicycle maintenance and more!



Facing the Past

https://www.facingthepast.org/

Facing the Past is a programme of creative activity and a permanent digital resource that reveals and redresses omissions in the way the City of Lancaster has commemorated its role as the fourth largest slavery port in the UK. It includes an interactive digital map, public performance events and resources to support teachers.



Furness Education and Skills Partnership (FESP)

https://fesp.org.uk

FESP is a partnership of schools, colleges, local employers and agencies across Barrow in Furness who recognise the need to equip local young people with relevant knowledge, skills and aspirations. FESP facilitates projects and events which enable enterprise, innovation and long-term growth.



Global Link

https://globallink.org.uk

Global Link deliver projects, workshops and training in schools and the wider community across Lancashire. This includes place-based environmental action projects, school workshops about migration, asylum and refugees and local food growing and cooking sustainability workshops.



Lancashire and Cumbria Wildlife Trusts

https://www.lancswt.org.uk and https://www.cumbriawildlifetrust.org.uk



Both trusts offer a variety of inspiring outdoor learning opportunities for children and young people including school visits to their sites, Forest and Beach School.

Teachers can engage with training opportunities including Wild Workshops, Forest School certification and team building.



Lancashire Youth Challenge (LYC)

https://www.lancashireyouthchallenge.co.uk/

Lancashire Youth Challenge nurtures, supports, and challenges young people living in Lancashire to overcome personal barriers. LYC provides outdoor education workshops, bushcraft sessions, camping residentials, forest school activities and ambitious outdoor expeditions.



Lancaster Green Spaces

https://lancastergreenspaces.org/

Lancaster Green Spaces support the preservation, enhancement and maintenance of public areas in the City of Lancaster for the benefit of the public.



Little Chatters

https://www.littlechatters.co.uk

Gina Parker (Mullarkey) of Little Chatters offers training for teachers and sessions for children with an emphasis on Philosophy for Children (P4C), global and outdoor learning. Gina also runs a FREE Outdoor Learning Network across Lancashire and Cumbria.



Morecambe Bay Partnership (MBP)

https://www.morecambebay.org.uk

MBP's Outdoor Learning programmes support young people to explore and connect with the Bay; taking action to care for it. Our approach fosters environmental awareness, conservation values, and a deep appreciation for the unique ecosystem and rich culture of Morecambe Bay.



More Music

https://moremusic.org.uk/

More Music delivers inspiring participatory music sessions with all ages, including young people in and out of school. Based in Morecambe, they can deliver environmentally themed sessions, using lyric and songwriting to explore issues around climate change.



North West Beach School Network

https://forms.gle/qoqp3hwf8PWMJh6C7

Beach School is an unforgettable way for children to immerse themselves in the wonders of the UK's seas and beaches. As a friendly network of teachers, they work together to improve students' knowledge about their local coastal environment by connecting them with nature and inspiring them to care for our coasts.



RSPB at Leighton Moss

https://www.rspb.org.uk/days-out/reserves/leighton-moss

Immerse your class in hands-on learning at the Leighton Moss nature reserve. Sessions are led by RSPB education professionals, trained to help you meet your learning objectives.



The Bay: A Blueprint for Recovery

https://www.thebay.org.uk/

The Bay: A Blueprint for Recovery uses nature-based solutions to help people's wellbeing and nature's recovery. They primarily work with young people aged 16+; running accessible events to promote careers in conservation.



Where the Wildings Are!

https://foodfutures.org.uk/where-the-wildings-are

Where the Wildings Are! help schools to support wildlife, grow food and to make school grounds greener; enabling them to tackle climate change, biodiversity loss and food insecurity.



Wyre Rivers Trust

https://wyreriverstrust.org/

Wyre Rivers Trust aims to bring the challenges which face rivers and their catchments into the public domain. They encourage more people to become interested in rivers, landscape recovery and the actions needed to ensure that we protect them.





