Unlocking the Biosphere

How can we make outdoor learning a normal part of secondary education?

Embedding learning outside the classroom in secondary education.

Marion Arthur - DESC / Ramsey Grammar School

Think back

A lesson that stuck with you

A Teacher that made a difference

An Experience that changed your perspective

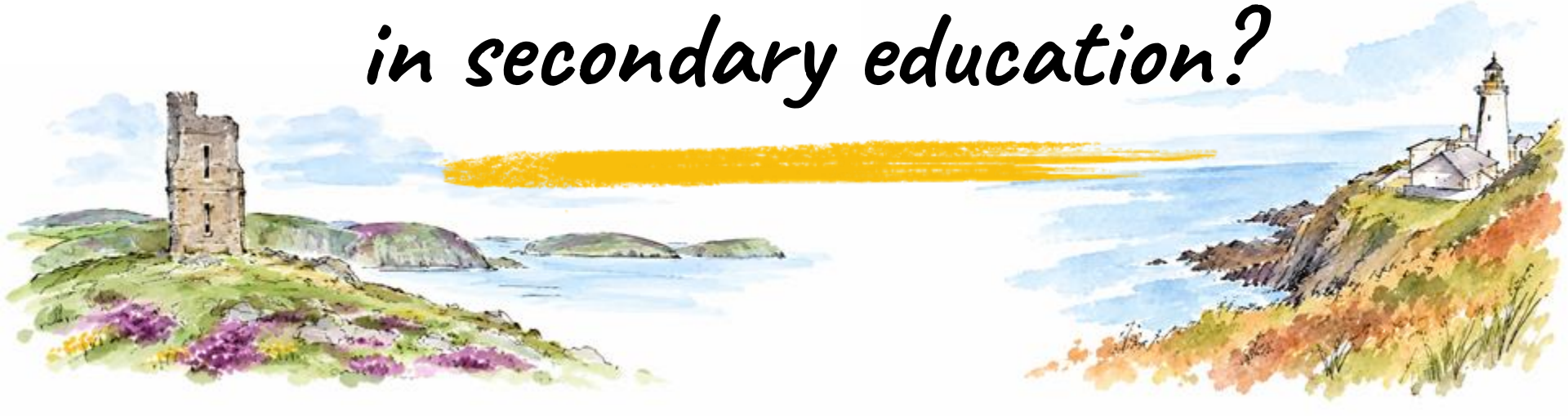
Something that Challenged you

What is your most memorable experience from your time at school?





How can Learning Outside the Classroom become a normal, sustainable part of curriculum delivery in secondary education?



Why am I asking this question

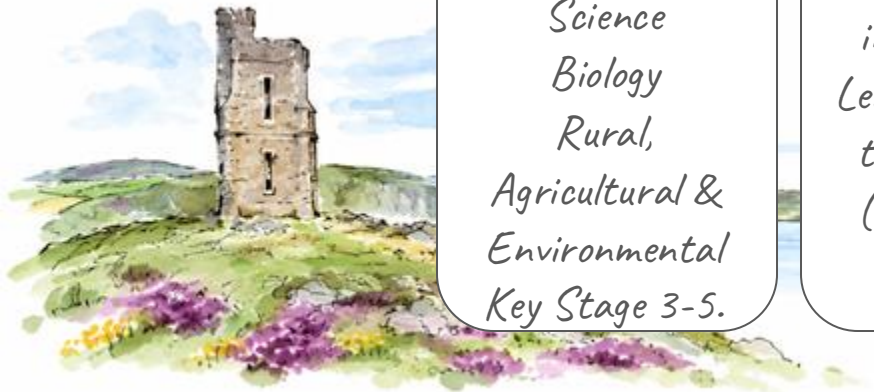
Environmental Foundations
Animal Keeper
Applied Ecology
BSc
Environmental Management
MScR.

Practitioner
20 years
Secondary
Science
Biology
Rural, Agricultural & Environmental
Key Stage 3-5.

Experiential Educator
Regular integration of Learning Outside the Classroom (LOtC) within curriculum.

Researcher & Designer
MA Leadership in Experiential Education & Curriculum Design.

Continuing the Journey
PhD (p/t)
Outdoor learning in secondary education.
Wider impact & sustainable practice.



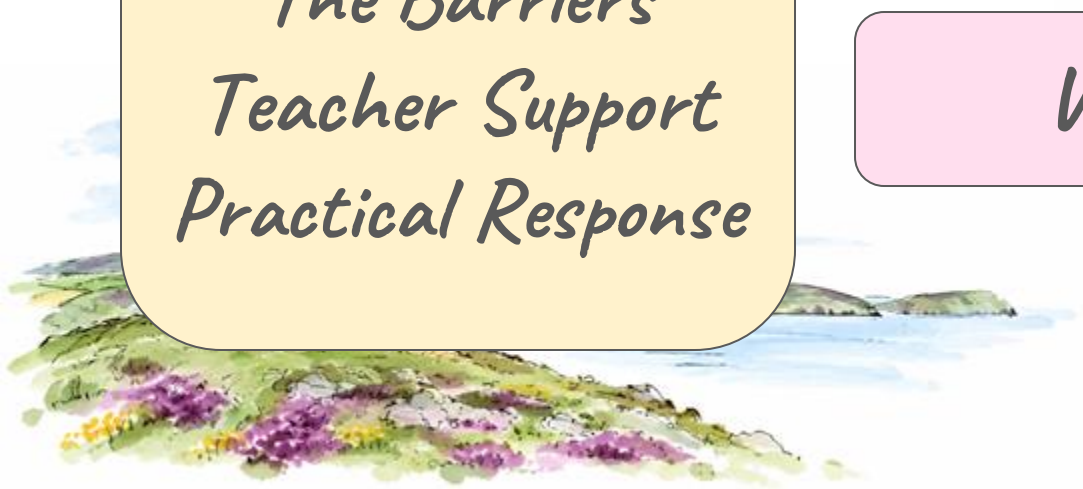


Research Focus

The Benefits
The Barriers
Teacher Support
Practical Response

Not a single place study

Why this matters





How I approached this reseach

A desk based, evidence informed approach

Reviewed Evidence
Literature
Barriers
Benefits

Context
Curriculum
Realities
Policy
Restraints

Existing
Provisions
Resources
Gaps

Response
Evidence informed
Practical

Not "Outside good-inside bad", the right environment strengthens learning

Why go beyond the classroom?

Learning & Cognition

Applying knowledge
Real contexts
Deeper understanding
Ideas stick

Engagement

Movement, curiosity
Participation
Increased purposeful learning.

Wellbeing & Belonging

Different environments
Calmer
Connected
Take part.

Transferable Capabilities

Communication
Collaboration
Resilience
Problem Solving

Government is asking for outdoor learning

Policy ambition and evidence of a delivery gap

DfE Strategy

Practical experience in nature for all young people

(DfE sustainability strategy 2022)

Enrichment

Every pupil: nature, outdoors and adventure during the school day

(enrichment benchmarks 2026)

DfE evaluation

Timetable and staff confidence barriers

Secondary reach limited

(National Education Nature Park evaluation 2025)

The opportunity: turn the policy ambition into routine secondary teaching

The transition

From early enthusiasm to a more complex reality

Early years & Primary

LOtC familiar
Naturally accepted

Secondary Context

Subjects
Specialist rooms
Timetables
Specifications
Accountability
Tighter routines

Higher Barrier

Potential still exists
Threshold higher

Same educational potential - different practical pressures

What gets in the way?

Challenge is often practical, not philosophical

Curriculum & Time
Can content be covered effectively?

Confidence & Risk
Pedagogy, behaviour & risk.
Less familiar

Workload & Logistics
Preparation, planning & Organisation.
Extra Work

Response
Evidence informed
Practical

Accidental champion
Enthusiastic person, not Sustainable system

A Valuable person is not the same as sustainable practice

From activities to infastructure

Making opportunities visible and usable for teachers

Teachers start with curriculum

What do I need to teach?

Visible Connections

Place, data, case studies, experts, organisations

Reusable

Resources
Guidance
Examples
Not starting from scratch

Not "Who you know"

Good practice
More Connected
Shareable
Sustainable

The shift is from isolated activity to a system

A continuum, not just a field trip

Different learning environments serve different purposes

Classroom Door
10–15mins
Nearby

School grounds
Simple
Local
Routine

Local Community
People
Places
Stories

Offsite visit
Planned visit
Adds value

Residential champion
Extended
Immersive
Purposeful

LOtC can happen more often if we include the small and manageable as well as the ambitious

A local lens: the Biosphere as a living campus

Using place as part of the curriculum

Natural environment
Coast, Uplands, biodiversity, land use. Changing ecosystems

People & culture
Heritage, language, communities, stories, arts, identity.

Economy & Enterprise
Agriculture, tourism, business, innovation, real world briefs.

Built Environment
Transport, engineering, architecture, public space & design.

The local environment can provide a site, dataset, case study, expert voice or real problem.

From Research to prototype



What do I need to teach?

What could LOtC add?

Find options
Place, expert. Dataset. activity

Planning, risk & practical support

One possible application of the framework - not the finished answer.

What happens next?

Start small, learn what teachers use, then scale

Listen
Ask teachers what helps and what hinders.

Codesign
Shape a practical LOtC framework with teachers and policymakers

Test
Trial it across more school subjects and settings.

Evidence
Show the benefits and what makes it sustainable.

My longer-term ambition: help policymakers recognise the full value of learning outside the classroom and give it a place in new subject specifications.

Thankyou

Any Questions?

How can Learning outside the classroom be a normal sustainable part of secondary education?



