Teacher Guide

Principles

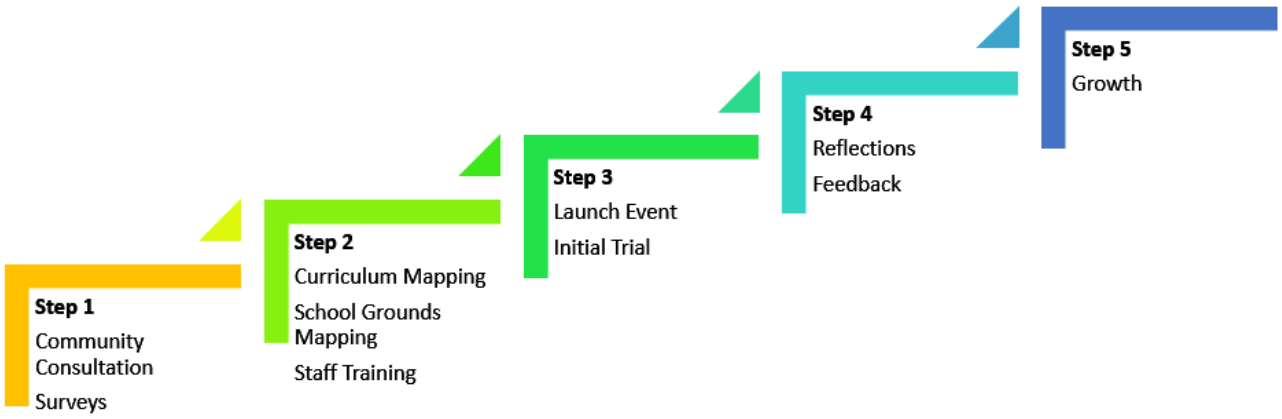
The Ministry of Eco Education Curriculum is a new lens through which to educate children with sustainability woven into the fabric of every topic and each lesson. The curriculum is cross curricular in nature, transcending traditional ideas of subject disciplines. The framework connects subject elements of the Primary National Curriculum through broad environmental themes so that schools can achieve both the Primary National Curriculum as well as a holistic environmental education appropriate for the Anthropocene. The curriculum is holistic in nature with clear aims for all elements of school life including the content, pedagogy and assessment.

Four key principles

- **Enquiry** - learning through discovery and experience
- **Adventure** - attitude to the world
- **Balance -** exploring the Human-Nature Relationship
- **Systems Thinking** - seeing the complexity and connections

Process

Before beginning the journey of shifting the school curriculum, it is important to understand the key milestones within the process and the optimum chronology to create successful change.



Step 1) Community Consultation / Surveys

The first phase initiates conversations with key stakeholders in the school community including, staff, students, parents and governors. Sharing ownership and allowing everyone to feel part of the process from the very beginning increases the impact and chances of success. This is also the phase to use conversations and surveys to explore people's strengths and weaknesses as both opportunities to incorporate into the curriculum as well as aspects to target further training and support. By the end of this phase the school community will have an understanding of the aims of the curriculum and a shared language to communicate the journey.

Step 2) Curriculum Mapping / School Grounds Mapping / Staff Training

Once the school community is in support of moving to the Ministry of Eco Education curriculum, the next step is to begin mapping out the current situation and plotting a path forward. This includes both the academic curriculum, wider school structures and school grounds. A variety of checklists and templates guide schools through this stage and signpost key organisations which can provide assistance.

Step 3) Launch Event / Initial Trial

At first, schools might choose to incorporate a handful of topics within their curriculum and engage with the broader enrichment and philosophy of the curriculum. To build momentum and excitement, there's the opportunity to launch the curriculum with a focussed week of events. This might include an opening assembly, a school fete or specific events for parents and the wider community. This week might fall at the beginning of the term when the curriculum is first being taught. A targeted initial trial also allows staff to explore and understand the guiding ethos and approach, this might be supported by support and training from organisations.

Step 4) Reflections / Feedback

At regular intervals, from individual lessons to termly and annually reviews, the framework provides opportunities to gather the community's reflections and feelings about the curriculum. Action can

then be taken to shift course, adapt and build on successes whilst also continuously communicating with the school community.

Step 5) Growth

When the school community feels confident with the key principles of the curriculum there is then the opportunity for greater freedom and creativity. An example of this might be teachers creating their own topics using the framework or taking up opportunities to embed a greater number or more advanced enrichment learning activities.

Content

To create a suitable structure for the content, the curriculum employs 7 key themes, common across many environmental education frameworks, which contain the main aspects of the climate and ecological emergency.

Key Themes

- Energy
- Transport
- Food
- Water
- Nature
- Waste
- Society

Key Concepts

Across the curriculum are a variety of key concepts which transcend topics and help students to develop a higher order conceptual approach to their thinking. The key concepts include:

- Action
- Human-Nature Relationship
- Community
- Identity
- Jobs
- Equality
- Futures

These concepts provide the focus for topics and help give direction to the lessons, helping teachers and students understand the lens through which they're investigating the world. More detail will be provided about the definition and meaning of each of these themes and concepts.

Enquiry Questions

The framework employs an enquiry based learning approach made popular by educators such as Margaret Roberts[1]. Enquiry based learning has four key principles including; 1) question driven encouraging questioning attitudes towards knowledge 2) Students study data and sources of information as evidence 3) Students make sense of information for themselves in order to develop understanding 4) Students reflect on their learning. Enquiry based learning provides a continuum for learning with teachers directly guiding or more student self-direction. The enquiry questions are provocative and broad in nature, providing a real world hook or motivation for learning. The questions look to reveal the structures and processes at work within society and understand why sustainability is not already at its core. As a consequence, the questions provoke critical thought and the exploration of radical alternatives.

Find an up to date list of enquiry questions with links to schemes of learning here

Theme	Enquiry Question	Possible Topics
Energy	What is truly renewable?	Nuclear / Greenwashing / Renewable Obligation Certificates
Energy	Is carbon a magic ingredient?	Carbon / Climate Change
Energy	How should we heat our homes?	Gas / Electricity / Hydrogen / Efficiency / Insulation
Energy	Are we addicted to fossil fuels?	Oil / Coal / Gas
Energy	What does it take to make a cup of tea?	Production / Electricity
Transport	Should everyone get an electric car?	Comparison of forms of travel / Impact of electric cars
Transport	Would the world be better without tourists?	Impact of tourism / international travel
Transport	How can places be liveable?	Human Scale Travel
Food	Should we all go vegan?	Exploring different diets
Food	Where should we get our food?	Seasonality / Location / Rate your Plate
Food	Why are some people hungry?	Inequality / Food Systems

[1] https://www.geography.org.uk/Curriculum-Making-Through-Enquiry

Nature	Does it matter if species go extinct?	Extinction / Focus on Bees
Nature	How should we use land?	Land Ownership / Land Use
Nature	Is the climate breaking down?	Climate Change / Extreme Weather
Nature	What happens at night?	Natural Rhythms / Cycles
Nature	Is Nature the answer?	Nature Based Solutions / Biomimicry
Nature	How biodiverse is Minchinhampton?	Biodiversity / Identification
Nature	Where have all the trees gone?	Deforestation / Wood Wide Web
Nature	How important is soil?	Erosion / Farming
Nature	Let's all go on a deep time walk	Deep Time / Society
Water	Why are rivers polluted?	Water Treatment / Water Companies
Water	Do we live on a blue planet?	Weather / Oceans
Water	Why is all the ice disappearing?	Ice Melt / Tipping Points
Waste	Does anything ever go away?	Circular Economy / Indigenous Knowledge
Waste	Do we live on a plastic planet?	Plastic Pollution
Waste	Who made my clothes?	Product Lifecycle / Global Division of Labour
Society	How many people is too many?	Population / Carrying Capacity
Society	What are the commons?	Concept of the Commons / Air / Water / Land
Society	How much stuff is enough?	Consumerism / Capitalism
Society	What do we need for a meaningful life?	Happiness / Happy Planet Index / GDP
Society	What is the future of democracy?	Citizen’s Assemblies / Direct Democracy
Society	Is social justice climate justice?	Inequality / Race / Gender

Pedagogy

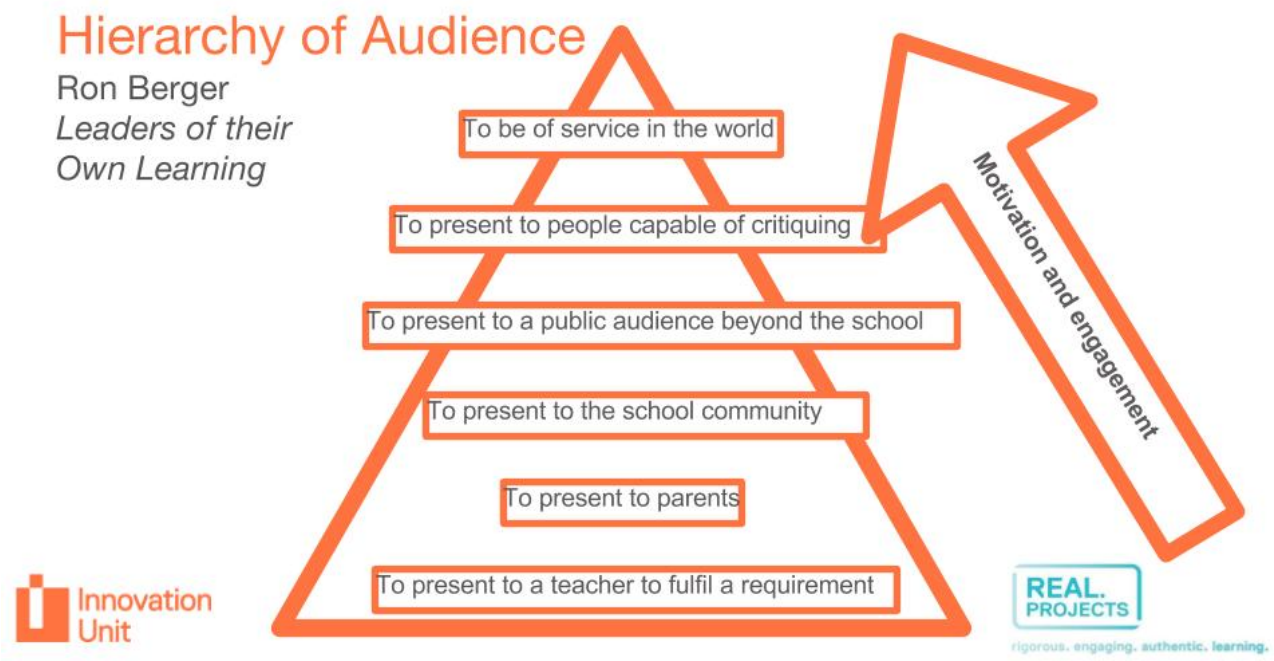
The climate and nature emergency has far reaching implications for the “how” we teach as well as the “what”. The curriculum envisions knowledge as socially constructed. The teacher uses their expertise not to transmit knowledge but instead to guide learning. The curriculum is based on constructivist views of knowledge and theory of learning which encourage a critical, questioning attitude towards knowledge. Critical theory plays a key role in ensuring children consider a range of perspectives and views, developing competences for democratic debate and deliberative democracy.

Lesson activities involve considerable discussion, both between the teacher and the class but also more importantly between children as well. Topics might last 8-12 lessons with the beginning of topics framed by the broad enquiry question to begin students on their journey. Lessons might begin with an eye catching image or stimulus to capture the students’ imaginations. Throughout lessons students will interrogate real world data and information. Stories will play a key part in learning.

To counter the distancing of ourselves from the rest of nature, the curriculum normalises pockets of time spent outside. With outside not just being ideas of green ‘nature’ but also the built environment of quality playgrounds and wider community spaces. Throughout lessons, students use the outdoor environment as a space for learning. As a result, learning occurs across a variety of environments, not just whilst sitting in rows within a classroom.

Assessment

Many of the problems with the current education system are driven by the narrow focus on terminal examination and standardised assessment. Within the Ministry of Eco Education Curriculum, students are given the opportunity to develop extended and collaborative projects with real world audiences and meaningful feedback. Assessment is then integral to the learning process and feedback is used in a purposeful way to improve a student's performance within a particular learning journey.



Wider Enrichment

Running alongside the enquiry questions is a structure of wider enrichment which ensures learning occurs across the school day and in a variety of places, not just within the four walls of a classroom.

Learning Journal
The Learning Journal acts as a handbook to guide the students through the year and provides opportunities for reflection. At the heart of the learning journal is a calendar which provides information around the natural rhythms and cycles of a year. The booklet also includes diagrams, photographs and information to help students identify plants and animals. As well as information, the booklet includes a variety of mini activities in the style of 'Mission:Explore' which critically engage young people with the world around them. Activities also include provocations to create poems, illustrations and creative responses to the world.

School Day / Week
The curriculum emphasises natural rhythms and looks for opportunities to embed these within the school day and week. An example of this might be shorter days in the winter with activities linked to darker mornings and afternoons. In contrast, the summer offers the opportunity for more daylight and longer days. Festivals such as Beltane and the Spring and Summer equinoxes could become particular focuses for the curriculum. Prolonged and structured time in nature could become normalised with daily opportunities to see, smell and listen to aspects of the natural world. Experiences such as barefoot walks and forest immersion could be timetabled.

School Grounds
Mapping the school grounds offers the opportunity to establish a holistic plan to manage the space to prioritise nature and increase biodiversity. Rewilding opportunities could be explored and specific areas partitioned off for certain year groups to take responsibility for. Through curriculum topics students could manage land and witness the return of nature.

Community Engagement
Another aspect of the curriculum is the idea of building in multiple occasions where members of the local community visit the school within a specific topic or conversely where students visit the local community. An example of this might be a beach clean within the school day as part of a plastics topic or visiting a conservation area to participate in land management.

Adventure
Adventure forms a key focus for the curriculum and runs as a strand throughout. Whilst also living adventurously everyday and building adventure into specific curriculum topics, outdoor knowledge and skills appropriate to camp and explore safely are explicitly developed. These experiences could culminate in a celebration event and camp out at the end of the student's primary experience. This might be thought of as a rite of passage for the community.

Greening All Aspects of School Life

For the curriculum to have the greatest impact it is important for all aspects of school life to shift to be sustainable and zero carbon. This also runs deeper and connects with curriculum topics so that the school and local community can be used as case studies to explore. Many organisations help schools to do exactly this and the framework provides a checklist for schools to work through and analyse their own impact. Examples include:

- **Energy** - 100% Renewable Electricity
- **Travel** - Flight Free / Shift to electric minibuses / Active Travel
- **Food** - Mainly plant based / Engage with local sourcing
- **Nature (School Grounds)** - No Mow May / Promote Biodiversity
- **Waste** - Weigh Food Waste / Plastic Free / Anaerobic digester
- **Uniform** - Organic Cotton / Ethical supply chain
- **Procurement** - Nature based cleaning products

Schools might choose to follow the approach of “Use Less, Waste Less” and whatever you do use make sure it’s from sustainable sources.