

## Eco-Schools Curricular Maps - Climate Action Topic

The series of 'Outcome Maps' in this document suggest how Curriculum for Excellence (CfE) Experiences and Outcomes may be delivered through the Eco-Schools Biodiversity Topic

Eco-Schools Scotland commissioned experienced teachers to select outcomes they felt appropriate for each topic.

Please note:

- The selected outcomes for each Map are advisory – teachers may reject or add outcomes which they consider more appropriate to the context in which they plan to teach.
- Eco-Schools 'Outcome Maps' are for guidance purposes only, are not exhaustive and should not be viewed as limiting.
- The first map illustrates how closely the Seven Elements of the Eco-Schools Programme match core outcomes from CfE
- Each subsequent topic map is accompanied by a header which suggests possible 'lead curricular areas'. Again these are open to debate and amendment by teachers.
- While similar in format not all maps are identical – topics such as Health and Wellbeing are so closely related to Eco-Schools topics that almost all outcomes are relevant.
- Each outcome is normally quoted in full along with its relevant CfE code.
- Following piloting with teachers we have added a commentary in italics to some outcomes to explain their inclusion within an outcome map or suggest a possible teaching context. Linking 'arrows' on some topic maps highlight the opportunities for interdisciplinary learning across curricular areas.



## Climate Action Topic: Early Level



### Social studies (People, place and environment)

- I explore and appreciate the wonder of nature within different environments and have played a part in caring for the environment. **SOC 0-08a** *Looking after a garden or natural space in the school grounds.*

### Social studies (People, place and environment)

- I have experimented with imaginative ways such as modelling and drawing, to represent the world around me, the journeys I make and the different ways I can travel. **SOC 0-09a** *I can show different ways I can travel that are more environmentally friendly.*

### Social studies (People in society, economy and business)

- In real-life settings and imaginary play, I explore how local shops and services provide us with what we need in our daily lives. **SOC 0-20a** *I am beginning to see a difference between what we need and what we would like in our daily lives. I value the people and resources that create goods and services and paying a fair price. I notice ethical logos for consumers e.g. Fair Trade, Rainforest Alliance*

### Health and Wellbeing (Social wellbeing)

- Through contributing my views, time and talents, I play a part in bringing about positive change in my school and wider community. **HWB 0-13a**

### Health and Wellbeing (Physical wellbeing)

- I know and can demonstrate how to travel safely. **HWB 0-18a** *I can travel safely and sustainably e.g. a walking bus, safe walking routes, scooting*

### Languages (Organising and using information)

- Within real and imaginary situations, I share experiences and feelings, ideas and information in a way that communicates my message. **LIT 0-26a** *Sharing experiences and feelings about the natural world and hopes for a safe future.*

### Mathematics (Data and analysis)

- I can use the signs and charts around me for information, helping me plan and make choices and decisions in my daily life. **MNU 0-20c** *Recognising signs on recycling bins. Tally graphs to monitor progress of actions.*

### Sciences (Biodiversity and interdependence)

- I have observed living things in the environment over time and am becoming aware of how they depend on each other. **SCN 0-01a** *I am alive too and I depend on other plants and animals e.g. for food and air to breathe.*

### Sciences (Topical science)

- I can talk about science stories to develop my understanding of science and the world around me. **SCN 0-20a** *I can talk about the climate emergency and severe weather events such as floods and wildfires.*

### Religious and moral education (Values and issues)

- As I play and learn, I am developing my understanding of what is fair and unfair and the importance of caring for, sharing and cooperating with others. **RME 0-02a** *Sharing with people in other places, younger people or people yet to come by taking Climate Action e.g. careful use of resources and taking care of the soil and the natural world.*



## Climate Action Topic: First Level



### Social studies (People, place and environment)

- I can consider ways of looking after my school or community and can encourage others to care for their environment. **SOC 1-08a** *I take part in the Eco Committee or support them by taking part in the actions. I can explain our Eco Actions to others.*

### Health and Wellbeing (Social wellbeing)

- Through contributing my views, time and talents, I play a part in bringing about positive change in my school and wider community. **HWB 1-13a**

### Health and Wellbeing (Physical wellbeing)

- I know and can demonstrate how to travel safely. **HWB 1-18a** *I can travel safely and sustainably e.g. a walking bus, safe walking routes, scooting*

### Technologies (Technological Developments in Society and Business)

- I understand how technologies help provide for our needs and wants, and how they can affect the environment in which we live. **TCH 1-07a** *Heating and cooling systems (e.g. radiators and curtains) manage the temperature in the school. Transport networks help us get to school. Systems that use fossil fuels contribute to climate change. I close doors behind me to avoid wasting heat. I use active travel and safe routes to school as much as possible.*

### Languages (Creating texts)

- I can communicate clearly when engaging with others within and beyond my place of learning, using selected resources as required. **LIT 1-10a** *I can explain climate change to somebody and why it is important to me, sharing my opinion and using relevant information.*

### Mathematics (Data and analysis)

- Using technology and other methods, I can display data simply, clearly and accurately by creating tables, charts and diagrams, using simple labelling and scale. **MTH 1-21a** *Display data to show progress on your Climate Action topic work.*

### Sciences (Biodiversity and interdependence)

- I can distinguish between living and non- living things. I can sort living things into groups and explain my decisions. **SCN 1-01a** *I value living things, the variety of life and how different living things need each other.*

### Sciences (Topical science)

- I have contributed to discussions of current scientific news items to help develop my awareness of science. **SCN 1-20a** *I can talk about the climate emergency and severe weather events such as floods and wildfires.*

### Religious and moral education (Development of beliefs and values)

- I can show my understanding of values such as caring, sharing, fairness, equality and love. **RME 1-09b** *I can demonstrate my understanding through my actions.*



## Climate Action Topic: Second Level



### Social studies (People, place and environment)

- I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally- responsible way. **SOC 2-08a** *I can discuss impacts of climate change and what we can do to be more sustainable. I can refer to relevant, current news items as part of that discussion.*

### Health and Wellbeing (Social wellbeing)

- Through contributing my views, time and talents, I play a part in bringing about positive change in my school and wider community. **HWB 2-13a**

### Languages (Creating texts)

- I am developing confidence when engaging with others within and beyond my place of learning. I can communicate in a clear, expressive way and I am learning to select and organise resources independently. **LIT 2-10a** *I can explain climate change to somebody and it's importance to me, sharing my opinion and using relevant information to argue the case for urgent action.*

### Mathematics (Data and analysis)

- I can display data in a clear way using a suitable scale, by choosing appropriately from an extended range of tables, charts, diagrams and graphs, making effective use of technology. **MTH 2-21a** *Display data to show progress on your Climate Action topic work towards a target and where your actions may have changed as a result of what you learned from your monitoring data.*

### Sciences (Biodiversity and interdependence)

- I can identify and classify examples of living things, past and present, to help me appreciate their diversity. I can relate physical and behavioural characteristics to their survival or extinction. **SCN 2-01a** *I can relate adaptations of life, e.g. timing of flowering or having a thick coat, to different habitats. I can relate climate change as a threat to different habitats and therefore as a threat to the species adapted to life there.*

### Sciences (Biodiversity and interdependence)

- I have collaborated in the design of an investigation into the effects of fertilisers on the growth of plants. I can express an informed view of the risks and benefits of their use. **SCN 2-03a** *I have made and used good quality compost and observed the organisms in the compost heap. I understand that artificial fertiliser has no living things in it. I have investigated the soil in the school grounds and have a good understanding of what healthy soil looks like under a microscope.*

### Sciences (Energy sources and sustainability)

- Through exploring non- renewable energy sources, I can describe how they are used in Scotland today and express an informed view on the implications for their future use. **SCN 2-04b** *I can describe the difference of availability over time between renewable and non-renewable energy sources. I can describe how fossil fuels cause climate change.*

### Religious and moral education (Values and issues)

- I can share my developing views about values such as fairness and equality and love, caring, sharing and human rights. **RME 2-02b** *I can share my views about values such as fairness and equality, caring and human rights and how action to limit climate change fits with my values.*



## Climate Action Topic: Third Level



### Social studies (People in society, economy and business)

- When participating in an enterprise activity, I can explore ethical issues relating to business practice and gain an understanding of how businesses help to satisfy needs. **SOC 3-20a** *Through an enterprise activity I can make informed suggestions about ensuring sustainability. I can explore ethical issues relating to business practice and gain an understanding of whose needs different types of business seek to satisfy and prioritise, e.g. company executives, shareholders, co-operative members.*

### Health and Wellbeing (Social wellbeing)

- Through contributing my views, time and talents, I play a part in bringing about positive change in my school and wider community. **HWB 3-13a**

### Languages (Creating texts)

- I am developing confidence when engaging with others within and beyond my place of learning. I can communicate in a clear, expressive way and I am learning to select and organise resources independently. **LIT 3-10a** *I can explain climate change to somebody and its importance to me through using independent research, relevant information and evidence to express my opinion to persuade or argue for urgent action.*

### Mathematics (Data and analysis)

- I can display data in a clear way using a suitable scale, by choosing appropriately from an extended range of tables, charts, diagrams and graphs, making effective use of technology. **MTH 3-21a** *Display data to show progress on your Climate Action topic work towards a target and where your actions may have changed as a result of what you learned from your monitoring data.*

### Religious and moral education (Development of beliefs and values)

- I am developing my own understanding of values such as honesty, respect and compassion and am able to identify how these values might be applied in relation to moral issues. **RME 3-09b** *I recognise the Climate Emergency as a moral issue (Climate Justice) and participate in Climate Action topic events and projects.*

### Sciences (Biodiversity and interdependence)

- I can sample and identify living things from different habitats to compare their biodiversity and can suggest reasons for their distribution. **SCN 3-01a** *I can relate adaptations of life, e.g. timing of flowering or having a thick coat, to different habitats. I can relate climate change as a threat to different habitats and therefore as a threat to the species adapted to life there.*
- Through investigations and based on experimental evidence, I can explain the use of different types of chemicals in agriculture and their alternatives and can evaluate their potential impact on the world's food production. **SCN 3-03a** *I can explain the link between fertilisers and climate change. I can explain the state of health of agricultural soils in relation to different farming practises. I can explain links between pesticide use and their impacts on biodiversity e.g. neonicotinoids and honey bees.*

### Sciences (Energy sources and sustainability)

- By investigating renewable energy sources and taking part in practical activities to harness them, I can discuss their benefits and potential problems. **SCN 3-04b** *I can discuss how renewable energy sources relate to climate change, and explain the carbon cycle and human impacts on natural processes.*

### Sciences (Topical science)

- Through research and discussion, I have contributed to evaluations of media items with regard to scientific content and ethical implications. **SCN 3-20b** *I can research and discuss impacts of climate change and what we can do to be more sustainable. I can refer to relevant, current news items and their source information as part of that discussion.*



## Climate Action Topic: Fourth Level



### Social studies (People, place and environment)

- I can discuss the sustainability of key natural resources and analyse the possible implications for human activity. **SOC 4-08a** *As we transition to a society based on renewable energy sources and materials, there may be conflicts of interest in the production and uses of those materials e.g. how will a sustainable transport network run?*

### Health and Wellbeing (Social wellbeing)

- Through *contributing my views, time and talents, I play a part in bringing about positive change in my school and wider community.* **HWB 4-13a**

### Languages (Creating texts)

- I can communicate in a clear, expressive manner when engaging with others within and beyond my place of learning and can independently select and organise appropriate resources as required. **LIT 4-10a** *I can explain climate change to somebody and it's importance to us all through using independent research, relevant information and evidence to express a logical argument for urgent action.*

### Mathematics (Data and analysis)

- I can select appropriately from a wide range of tables, charts, diagrams and graphs when displaying discrete, continuous or grouped data, clearly communicating the significant features of the data. **MTH 4-21a** *Have a clear understanding of the data from your Climate Action topic work. Display data to show progress on your Climate Action topic work towards a target and where your actions may have changed as a result of what you learned from your monitoring data. Use your display to indicate possible next steps to build on your progress.*

### Sciences (Biodiversity and interdependence)

- I understand how animal and plant species depend on each other and how living things are adapted for survival. I can predict the impact of population growth and natural hazards on biodiversity. **SCN 4-01a** *I understand that climate change is increasing the rate of conflict between species as migration and habitat loss occur.*

### Sciences (Biodiversity and interdependence)

- Through investigating the nitrogen cycle and evaluating results from practical experiments, I can suggest a design for a fertiliser, taking account of its environmental impact. **SCN 4-03a** *Nitrous oxide emissions from agriculture contribute to climate change. Design a fertiliser that helps to support and improve the soils as a carbon sink. Investigate technology to reduce fertiliser use.*

### Sciences (Energy sources and sustainability)

- Through investigation, I can explain the formation and use of fossil fuels and contribute to discussions on the responsible use and conservation of finite resources. **SCN 4-04b** *I can discuss how fossil fuels are causing climate change and explain the carbon cycle and human impacts on it including carbon emissions and possible routes for carbon out of the atmosphere.*

### Religious and moral education (Development of beliefs and values)

- I can apply philosophical enquiry to explore questions or ethical issues. **RME 4-09e** *Use hypothetical scenarios to explore different outcomes of climate change and the ethical issues that we all face in tackling it. e.g. Inaction leads to runaway climate change, wealthy nations withdraw aid to others, private business uses its money on vanity projects, individuals follow the example of government and business, nations create resilient, sustainable infrastructure and cultures.*