Eco-Schools Curricular Maps - Water 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 Water 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.
Water Topic: Early Level

Social Studies (People, past events and societies)
- I have explored how people lived in the past and have used imaginative play to show how their lives were different from my own and the people around me. **SOC 0-04a Did people always get water from a tap? Where from and how did they collect it?**

Social Studies (People, place and environment)
- While learning outdoors in differing weathers, I have described and recorded the weather, its effects and how it makes me feel and can relate my recordings to the seasons. **SOC 0-12a Where water comes from, rain gauges from reused plastic bottles. Snow, rain, sleet, hail, clouds**

Health and Wellbeing (Food and health)
- I am becoming aware of how cleanliness, hygiene and safety can affect health and wellbeing and I apply this knowledge in my everyday routines such as taking care of my teeth. **HWB 0-33a**

Technologies (Technological developments in society and business)
- To help care for the environment, I reduce, re-use and recycle the resources I use. **TCH 0-06a Reduce water consumption using hippo water savers and other water saving gadgets**

Literacy (Writing)
- Within real and imaginary situations, I share experiences and feelings, ideas and information in a way that communicates my message. **LIT 0-26a Drama about water shortages, flooding**

Expressive Arts (Participation in Performances and presentation)
- I have experienced the energy and excitement of performing for audiences and being part of an audience for other people’s presentations/performances. **EXA 0-01a Exploring water sounds – listening to water splashing, trickling, gushing**

Expressive Arts (Art and design)
- I have the freedom to discover and choose ways to create images and objects using a variety of materials. **EXA 0-02a Create pictures using colours and water to make patterns**

Expressive Arts (Music)
- I have the freedom to use my voice, musical instruments and music technology to discover and enjoy playing with sound and rhythm. **EXA 0-17a Making sounds with water- shaking containers and investigate pitch with recycled bottles filled with water**

Sciences (Biodiversity and Interdependence)
- I have helped to grow plants and can name their basic parts. I can talk about how they grow and what I need to do to look after them. **SCN 0-03a Watering plants to keep them healthy**

- By investigating how water can change from one form to another, I can relate my findings to everyday experiences. **SCN 0-05a Relate changes of state to the weather**
Water Topic: Early Level

**Sciences (Biological systems)**
- I have explored my senses and can discuss their reliability and limitations in responding to the environment. 
  *SCN 1-12b Properties of water, touch/sound/splashing, running*

**Sciences (Materials)**
- Through creative play, I explore different materials and can share my reasoning for selecting materials for different purposes. 
  *SCN 0-15a what materials are waterproof?*
Water Topic: First Level

Social Studies (People, past events and societies)
- I can compare aspects of people’s daily lives in the past with my own by using historical evidence or the experience of recreating an historical setting. SOC 1-04a History of water supply

Social Studies (People, place and environment)
- By using a range of instruments, I can measure and record the weather and can discuss how weather affects my life. SOC 1-12a
- By exploring climate zones around the world, I can compare and describe how climate affects living things. SOC 1-12b Endangered species

Health and Wellbeing (Food and health)
- I am becoming aware of how cleanliness, hygiene and safety can affect health and wellbeing and I apply this knowledge in my everyday routines such as taking care of my teeth. HWB 1-33a

Technologies (Technological developments in society and business)
- I can take appropriate action to ensure conservation of materials and resources, considering the impact of my actions on the environment. TCH 1-06a Measure and reduce time taken in showers or running water when doing teeth

Literacy (Writing)
- By considering the type of text I am creating, I can select ideas and relevant information, organise these in a logical sequence and use words which will be interesting and/or useful for others. LIT 1-26a Posters on hygiene/water borne diseases

Expressive Arts (Participation in performances and presentation)
- I have experienced the energy and excitement of performing for audiences and being part of an audience for other people’s presentations/performances. EXA 1-01a Water Cycle Drama

Expressive Arts (Art and Design)
- I can create and present work using the visual elements of line, shape, form, colour, tone, pattern and texture. EXA 1-03a Create pictures using colours and water to make patterns

Expressive Arts (Music)
- I can create and present work using the visual elements of line, I can use my voice, musical instruments and music technology to discover and enjoy playing with sound, rhythm, pitch and dynamics. EXA 1-17a Investigate pitch with recycled bottles filled with water

Sciences (Biodiversity and Interdependence)
- I can help to design experiments to find out what plants need in order to grow and develop. I can observe and record my findings and from what I have learned I can grow healthy plants in school. SCN 1-03a Watering plants to keep them healthy
- By investigating how water can change from one form to another, I can relate my findings to everyday experiences. SCN 1-05a Relate changes of state to the weather
Water Topic: First Level

**Sciences (Biological systems)**
- By researching, I can describe the position and function of the skeleton and major organs of the human body and discuss what I need to do to keep them healthy. SCN 1-12a Water for health, need for clean water
- I know the symptoms of some common diseases caused by germs. I can explain how they are spread and discuss how some methods of preventing and treating disease benefit society. SCN 1-13a Hand washing programmes

**Sciences (Materials)**
- I can make and test predictions about solids dissolving in water and can relate my findings to the world around me. SCN 1-16a e.g. sand, oil, soap, salt, sugar
**Water Topic: Second Level**

**Social Studies (People, past events and societies)**
- I can compare and contrast a society in the past with my own and contribute to a discussion of the similarities and differences. **SOC 2-04a History of water supply – link to Romans**

**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 Water management**

**Health and Wellbeing (Food and health)**
- By applying my knowledge and understanding of current healthy eating advice I can contribute to a healthy eating plan. **HWB 2-30a Importance of hydration in all aspects of health and wellbeing**
- Having learned about cleanliness, hygiene and safety, I can apply these principles to my everyday routines, understanding their importance to health and wellbeing. **HWB 2-33a**

**Literacy**
- I can convey information, describe events or processes, share my opinions or persuade my reader in different ways. **LIT 1-28a**

**Expressive Arts (Art and design)**
- I can create and present work that shows developing skill in using the visual elements and concepts. **EXA 2-03a**
- Inspired by a range of stimuli, I can express and communicate my ideas, thoughts and feelings through activities within art and design. **EXA 2-05a**

**Expressive Arts (Music)**
- I can use my voice, musical instruments and music technology to experiment with sounds, pitch, melody, rhythm, timbre and dynamics. **EXA 2-17a Investigate pitch with recycled bottles filled with water.**

**Sciences (Planet Earth)**
- I can apply my knowledge of how water changes state to help me understand the processes involved in the water cycle in nature over time. **SCN 2-05a**

**Sciences (Biological systems)**
- By investigating some body systems and potential problems which they may develop, I can make informed decisions to help me to maintain my health and wellbeing. **SCN 2-12a Link to handwashing, personal cleanliness and access to clean water**
- used to clean and conserve water and I am aware of the properties and uses of water. **SCN 2-18a**
Water Topic: Second Level

Sciences (Materials)

- have participated in practical activities to separate simple mixtures of substances and can relate my findings to my everyday experience. **SCN 2-16a Links to water purification**

- By investigating common conditions that increase the amount of substance that will dissolve or the speed of dissolving, I can relate my findings to the world around me. **SCN 2-16b Relate to water pollution e.g. detergents**

- I have investigated different water samples from the environment and explored methods that can be
Social Studies (People, past events and societies)
- I can describe the factors contributing to a major social, political or economic change in the past and can assess the impact on people’s lives. **SOC 3-05a** *Events leading to a clean water supply including John Snow’s investigations into the source of cholera*

Social Studies (People, place and environment)
- I can identify the possible consequences of an environmental issue and make informed suggestions about ways to manage the impact. **SOC 3-08a** *Water management*
- I can investigate the relationship between climate and weather to be able to understand the causes of weather patterns within a selected climate zone. **SOC 3-12a** *Water cycle*
- By comparing settlement and economic activity in two contrasting landscapes, I can reach conclusions about how landscapes influence human activity. I can explain my findings clearly to others. **SOC 3-13a** *Comparison between Developing World drought landscape and area of the UK*

Social Studies (People in society, economy and business)
- I can describe how the interdependence of countries affects levels of development, considering the effects on people’s lives. **SOC 3-19a** *Water conflict*

Health and Wellbeing (Food and health)
- Through practical activities using different foods and drinks, I can identify key nutrients, their sources and functions, and demonstrate the links between energy, nutrients and health. **HWB 3-31a** *Water as a key nutrient and importance of hydration in all aspects of health and wellbeing*

Literacy (Writing)
- I can use notes and other types of writing to generate and develop ideas, retain and recall information, explore problems, make decisions, generate and develop ideas or create original text. **LIT 3-25a** *Water as the source and sustenance of life can provide inspiration for writing in a number of genres.*

Sciences (Planet Earth)
- 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** *Water used to provide energy*
- By using my knowledge of our solar system and the basic needs of living things, I can produce a reasoned argument on the likelihood of life existing elsewhere in the universe. **SCN 3-06a** *NASA’s strategy to ‘follow the water’ in the search for life elsewhere*

Sciences (Biological systems)
- I have explored the structure and function of organs and organ systems and can relate this to the basic biological processes required to sustain life. **SCN 3-12a** *Water for heal, water for brains, need for clean water*
- I have explored the role of technology in monitoring health and improving the quality of life. **SCN 3-12b** *Water filtration systems, modern wells, water test kits for bacteria, pesticides, lead*
- I have explored how the body defends itself against disease and can describe how vaccines can provide protection. **SCN 3-13c** *Consider water borne diseases such as cholera and polio*
Water Topic: Third Level

Sciences (Materials)
- I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components. **SCN 3-16a Water purification**
- I can participate in practical activities to extract useful substances from natural resources. **SCN 3-17b Survival skills challenge to desalinate sea water**

Religious and moral education (Christianity)
- I can demonstrate my developing understanding of moral values through participating in events and projects which make a positive difference to others. **RME 3-02b Consider Toilet twinning, WaterAid**
Water 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** *Sustainability issues over bottled water, water pollution, America’s endangered rivers*
- I can explain how the distribution and control of important natural resources affects the international power and influences of states. **SOC 4-11b** *Water conflict*

Health and Wellbeing (Mental, emotional, social and physical wellbeing)
- I am developing my understanding of the human body and can use this knowledge to maintain and improve my wellbeing and health. **HWB 4-15a** *Pupils may learn about the essential need for clean water to keep the body healthy.*

Technologies (Technological developments in society and business)
- I can analyse products taking into consideration sustainability, scientific and technological developments. **TCH 4-05a** *Water use in mass production,*

Sciences (Planet Earth)
- I have propagated and grown plants using a variety of different methods. I can compare these methods and develop my understanding of their commercial use. **SCN 4-02a** *Large volumes of water required for some crops, contention over water sources for avocados*
- By contributing to an investigation on different ways of meeting society’s energy needs, I can express an informed view on the risks and benefits of different energy sources, including those produced from plants. **SCN 4-04a** *Large volumes of water required for plant stock for biofuels, investigate the extraction of hydrogen from water as a new power source*

Sciences (Materials)
- I can monitor the environment by collecting and analysing samples. I can interpret the results to inform others about levels of pollution and express a considered opinion on how science can help to protect our environment. **SCN 4-18a**

Sciences (Topical Science)
- I have researched new developments in science and can explain how their current or future applications might impact on modern life. **SCN 4-20a** *Methods of providing fresh water e.g. desalination*

Religious and moral education (Christianity)
- I can apply my developing understanding of morality to consider a range of moral dilemmas in order to find ways which could promote a more just and compassionate society. **RME 4-02b** *Lack of justice in water conflict, climate justice, using other peoples water*