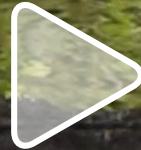




WATER

All lessons are linked to the film Water



To View



Subtitled



Learning for Water

Overarching Learning Intentions

The aim of this package of lessons linked to the film 'Water' is to help young people understand how water is integral to habitats, biodiversity and life. The lessons will give young people an understanding and reminder of the role of water in nature and for a variety of species. The IDL learning experiences focus on rivers and streams and how important clean water is for all life, including humans across the world.

INTRODUCTION

Water shows how the Threave Landscape Restoration Project is supporting the recovery of key wetland and freshwater habitats on Threave Nature Reserve.

Healthy wetlands are vital to biodiversity, carbon and water storage and are one of the most endangered habitats in the world. Wetlands have been depleted by drainage and flood management practices over time, reducing the habitats and the wildlife that depends on them but also in many cases causing an increase in flood damage due to decreasing how much water can be absorbed naturally into the landscape.

Healthy streams and rivers are also key to biodiversity. Management practices such as 'canalisation' (straightening a stream or river) as well as a reduction in the amount of trees along waterways causes these habitats to degrade and the freshwater life become increasingly vulnerable to pollution and temperature change.

To help restore the freshwater habitats, the project used hydrology mapping to predict the effects of change in water flow, then breached the old flood wall along the riverbank in two places, allowing the wetlands to flood naturally. It also took measures to restore the Mill Burn, introducing obstacles to mimic a more natural variety of water flow and depth, and planting along the bank of the burn. The changes will be monitored as the project progresses.

POINTERS FOR TEACHERS

This series of interdisciplinary lessons/learning activities cover 2nd and 3rd level curriculum areas of Science, Outdoor Learning and IDL including Social Studies, Health and Technology. They are best presented to young people after they have watched the 'Water' film ([link above](#)) and had an introduction to the science of water. The lessons are suggestions and should be interpreted by teachers creatively and in relation to learners' knowledge and needs. The lessons can be taught as part of a Learning for Sustainability/IDL topic or independently by subject.

CURRICULUM LINKS

SCIENCE	SOCIAL STUDIES/TECH	LITERACY	EXPRESSIVE ARTS/HWB
<p>SCN 2/3/4-01a - 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.</p> <p>I can sample and identify living things from different habitats to compare their biodiversity and can suggest reasons for their distribution.</p> <p>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.</p>	<p>SOC 2-07B - I can describe physical processes of a natural disaster and discuss the impact on people and landscape</p>	<p>LIT 2-04a - As I listen or watch, I can identify and discuss the purpose, main ideas and supporting detail contained within the text, and use this information for different purposes.</p>	<p>EXA 2-04a - Through observing and recording my experiences across the curriculum, I can create images and objects which show my awareness and recognition of detail.</p>
<p>SCN2-02a - I can use my knowledge of the interactions and energy flow between plants and animals in ecosystems, food chains and webs. I have contributed to the design or conservation of a wildlife area.</p>	<p>SOC2-08a - I can discuss the environmental impact of human activity and suggest ways to be more responsible.</p>	<p>LIT 2-05a - As I listen or watch, I can make notes, organise these under suitable headings and use these to understand ideas and information and create new texts, using my own words as appropriate.</p>	<p>EXA 2-05a - Inspired by a range of stimuli, I can express and communicate my ideas, thoughts and feelings through activities within art and design.</p>
<p>SCN 2-02b - Through carrying out practical activities and investigations, I can show how plants have benefited society.</p>	<p>SOC 2-08b/3-08b - I can describe the advantages and disadvantages of a proposed land use development and discuss the impact this may have on the community.</p>	<p>LIT 2-06a - I can select ideas and relevant information, organise these in an appropriate way for my purpose and use suitable vocabulary for my audience.</p>	<p>EXE 2-06a - I can develop and communicate my ideas, demonstrating imagination and presenting at least one possible solution to a design problem.</p>

CURRICULUM LINKS (CONTINUED)

SCIENCE	SOCIAL STUDIES/TECH	LITERACY	EXPRESSIVE ARTS/HWB
SOC2-08a - I can discuss the environmental impact of human activity and suggest ways to be more responsible.		LIT 2-07a - I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own.	EXA 2-09a - Inspired by a range of stimuli, I can express my ideas, thoughts and feelings through creative work in dance.
SOC 2-08b - I can consider the advantages and disadvantages of a proposed land use development and discuss the impact this may have on the community.		LIT 2-28a - I can convey information, describe events, explain processes or combine ideas in different ways.	HWB 2-26a - I am experiencing enjoyment and achievement on a daily basis by taking part in different kinds of energetic physical activities of my choosing, including sport and opportunities for outdoor learning, available at my place of learning and in the wider community.
SCN 3-01a - I can sample and identify living things from different habitats to compare their biodiversity and can suggest reasons for their distribution.	TCH 2-09a - I can extend and enhance my design skills to solve problems and construct models.		HWB 2-35a - When preparing and cooking a variety of foods, I am becoming aware of the journeys which foods make from source to consumer, their seasonality, their local availability and their sustainability.
SCN 3-05b - I can explain some of the processes which contribute to climate change and discuss the possible impact of atmospheric change on the survival of living things.			
SCN 2-14a - By investigating the lifecycles of plants and animals, I can recognise the different stages of their development.			

Outdoor Learning

LEARNING INTENTION

Young people gain an experiential, first-hand understanding of how freshwater ecosystems work through observation, exploration and investigation. They develop their connection with local areas of water/wetlands and can identify actions that might support or improve water habitats.

Overview

The Outdoor Learning activities for 'Water' are designed to give teachers and outdoor educators a starting point for successful learning in the outdoor environment. They can be adapted to suit the site you have available and the time of year, and also list equipment and resources to aid preparation. There is a link to a risk benefit assessment that covers the outdoor learning sessions, which you can adapt if required. We hope all of these will be useful either directly or as inspiration and support for taking learners outdoors.

Relevant Topic/IDL links include

Water, Living Things, Habitats, Ponds, Rivers, Minibeasts, Weather and Climate, Ecosystems

Time of year

Spring/summer - term four and term one. Freshwater life is more abundant in spring and summer. Kick-sampling should not be done between late autumn and spring (see below).

Site

A pond or area of stream or burn that is shallow and easily accessible. Remember to get landowners' permission and check any environmental or wildlife conservation restrictions first.

WATCH WATER

All lessons are linked to the Water Film



LINKS

Safety

Risk Benefit Assessment

Warm-up activity - settling into the outdoor environment

Rainfall symphony - Warm-up activity sheet

LEARNING ACTIVITY

.....

INVESTIGATING FRESHWATER HABITATS – POND DIPPING OR KICK SAMPLING

Info

A healthy pond or stream needs shade, and different habitats within it – for example, shallow parts and deeper parts, fast flowing parts and slow flowing parts (eddies), deadwood and plants for food and nutrients. If water is too warm (lack of shade along the banks) or acidic (pollution, acidic run-off from commercial forestry) then water life can't survive. For example, if the water is too acidic it can stop salmon eggs from hatching properly, and fry and parr (young fish) won't survive if the water is too warm.

Freshwater invertebrates are important indicators of water health. You can use the OPAL resources with these activities to explore this further and measure water health.

Aim

To find freshwater invertebrates and use them to help assess the health of the pond or stream.

Task 1: Pond Dipping – have your trays to hand with some pond water already in them. Young people gently dip nets in and scoop out what they catch into the tray. It's a good idea to get clumps of pondweed and debris/sediment into the trays, and gently sift through them. Take lots of time to examine the contents of the trays – often smaller shrimps in larvae will be hard to see initially. Poking through the contents of the tray can be very absorbing.

Using the OPAL ID guide, record what you find on the OPAL recording sheet and use scoring to indicate water health (for a younger class, you can omit this and instead use the simpler Pond Dipping ID sheet to record what you find using tally marks).

Gently empty trays back into the water and rinse trays, nets, wellies and other equipment thoroughly under a tap as soon as possible.

Task 2: Kick sampling in streams or burns – *this should not be done between late autumn and early spring as you can disturb fish redds (egg laying sites). Get landowner permission first and ensure it is not a protected areas i.e. SPA, SAC, etc. Local fisheries organisations or ranger services can help identify appropriate areas (see Risk Benefit Assessment), and may be able to do the activity with you.

Stand in shallow moving water (burn or shallow river) and gently kick/disturb the bottom of the water with your feet, for one minute. You can also carefully lift up and replace rocks to dislodge what's underneath. Have a partner hold a net 50 centimetres to 1 metre downstream of where you disturb the waterbed to catch whatever is dislodged.

Tip into a tray to examine as above. It is useful to have some deeper buckets or tubs with more water in them for any small fish, etc, you might find.

Be gentle and slow in movements, for safety and to avoid disturbing creatures and churning up water more than necessary.

Record what you find using the OPAL scoring to indicate water health. Gently empty trays back into the water and rinse trays, nets, wellies and other equipment thoroughly under a tap as soon as possible.

* American signal crayfish (ASC) – these are an invasive species rapidly colonising rivers and streams in Scotland. They eat native fish eggs and fry and destabilise riverbanks by burrowing. It is illegal to purposefully trap or move them, and if caught they should be destroyed. The larvae can travel on equipment or footwear and pass to other water areas – all equipment should be properly cleaned out, disinfected on-site, and left to dry out entirely before being used again. If you are kick-sampling in an area where they are, we advise doing so with an organisation who can take charge of any ASC dispatching should they be caught – for example a local Ranger service or fisheries organisation.

Resources:

OPAL Aquatic Invertebrate ID guide

OPAL Amphibian ID guide

OPAL freshwater scoring sheet (in OPAL booklet)

Pond Dipping ID sheet (for younger learners)

Equipment

- fine gauge nets (rock pool nets are fine)
- sample trays (any white or light-coloured trays for example Gratnell trays)
- smaller tubs or pots for example ice cream tubs
- magnifying glasses
- freshwater invertebrate ID sheets (laminated!) – see Resources
- OPAL freshwater scoring sheets – see Resources
- pencils, clipboards

LEARNING ACTIVITY

2

.....

INVESTIGATING
FRESHWATER HABITATS
- HEALTHY HABITAT
CHARACTERISTICS

Aim

Aim to look at different characteristics of the water area and assess what could be improved - this can be done alongside Activity 1.

Task 1: Exploring the pond or stream - exploring and observing the water area together, discuss its features.

Questions to ask

- Describe the pond or stream - what does it look like? What does it smell like? Do you think it's natural, or made by people? Why?
- Is the water high or low, deep or shallow? Are there areas specific where the water is shallower, or deeper?
- (For streams) is the water fast or slow? Are there areas where the water is slower, or is it all the same?
- What is along the edge? Are there shaded areas? Are the banks high and steep?
- Where might this water come from?
- What might contaminate water and make it less healthy for plants, animals and humans?

Task 2: Testing the acidity of the water – take a sample of the water in the beaker and use the pH strip to test the acidity. Note this on your OPAL record sheet from Activity 1, if using.

Plenary

Gather together and ask learners some of the observations they have made about this pond or stream. In turn, ask them one thing they could do, or share with others, to help keep water habitats healthy.

Extension

Watch the excellent short film 'Riverwoods' (www.scotlandbigpicture.com/riverwoods) about rivers in Scotland, how they are under threat and what can be done to help them.

Link to discussion about larger bodies of water – lochs, or the sea. How does pollution, temperature change, etc, affect life in these places?

This is also an ideal opportunity to introduce water safety: there are many local and national organisations able to give talks about water safety RNLI – <https://rnli.org/safety>, Scottish Fire and Rescue – <https://www.firescotland.gov.uk/your-safety/outdoors/water-safety/>

Equipment

- pH testing strips (these can be easily sourced from secondary school biology classes)
- beakers or small tubs

LEARNING INTENTION

These learning experiences focus on using art and movement to visualise and underpin scientific concepts of how most species need water to survive. Species adapt to thrive in their environment, and we will look closely at aquatic adaptations. These lessons are aimed at second level but can be adapted for first level or third level.

Overview

Within the Science section of our Learning for Water Materials there are three Learning Activities. These activities will help learners understand our aquatic species, how they are adapted to thrive in their watery environments, and what their life in water is like.

In **Learning Activity 1**, learners will look at ways in which our aquatic life is adapted to the water. They will begin to link features of species that they can see with success in their environment. Using art, learners will create their own creatures with adaptations to further embed their understanding.

In the shorter **Learning Activity 2**, learners will see how some species depend on the water for some or all of their lifecycle and consider what might happen to the species if areas of the water they depend on suddenly disappear.

Finally, in **Learning Activity 3**, learners will create a water food chain in groups with a level of specificity appropriate to their age. They will begin to understand concepts such as energy loss and how toxic chemicals or microplastics become concentrated along the food chain, if suitable for their learning level.

WATCH WATER

All lessons are linked to the Water Film



POINTERS FOR TEACHERS

Adaptation is the process of change by which an organism or species becomes better suited to its environment. An adaptation is the heritable trait that helps an organism survive and reproduce in its environment.

LEARNING ACTIVITY

.....

WADING AND SWIMMING ADAPTATIONS

Info

All species are adapted to their environment, which helps them to survive and thrive. We can often see how they are adapted by looking and using a bit of logic.

Task 1: It is recommended to begin with the World Wildlife Trust's (WWT) great resource on waterfowl adaptations if your class is not familiar with this topic.

Task 2: Pupils can copy and label pictures of other animals seen in the films (or, if you have done pond dipping, from them) such as water boatman and caddisfly larvae, and think about how they could be adapted to their environment (see table below). You can have pictures on the board or print-outs for them to copy from.

WATER BOATMAN	CADDISFLY LARVAE
Long oar-like legs for swimming	Encased to provide camouflage
Front legs which can grab food	Encased to provide protection
Dark colour to blend in with water surface	Encased to be more streamlined so can survive strong currents
Long legs help them to stay on water surface	Legs can grab onto things on river bed to move them



Task 3: Pupils can create (via drawing or arts and crafts) their own animals that are perfectly adapted to life in or on water, again labelling their features.

Extension

If the class have already completed the Water food chains (activity 3), they can create new animals through this activity to fill those roles (using the 'general food chain' as a guide). Encourage pupils to name, label, and choose a habitat for their creations.

LEARNING ACTIVITY

.....

LIFECYCLES OF OUR RIVER ECOLOGY

2

Info

All living things have a life cycle which includes their birth, growth to maturity, reproduction, and death. Some living things will have several life stages where they can look very different and live in very different environments. All environments are important to protect and conserve as we never know what might be living in them (a ditch, puddle, watery hole in the ground, etc). Let's learn to recognise stages of the mayfly development.

Task 1: Pupils fill out the mayfly lifecycle worksheet using online references: 1, 2 - they can write information on each stage using the internet as well. The pupils should draw a swarm of adult mayflies for the last square (mating dance).

Task 2: Once completed, ask the pupils to stand behind their chair and decide on movements for each stage of the lifecycle and then dance through the lifecycle in one go!

Task 3: Ask the pupils where they think the mayfly might live during each stage and if they all live and if they all live in the same habitat (the answer is no). What happens if the habitat of one part of this life cycle is altered or removed? Pupils may suggest they can find somewhere else, or that they might struggle to survive or even die - this is all correct and the discussion can move onto why it is so important to protect all habitats, as they each play a role for many species!

Extension

Draw a similar life cycle poster for salmon - there are plenty of references online.

LEARNING ACTIVITY

.....

WATER FOOD CHAINS

Info

Energy flows through our food chains from the sun, the producer, and the consumers - but at each stage energy is lost via mating, hunting and growth, which has implications for the numbers of living things at each subsequent stage of the food chain, and also how toxic chemicals can affect those at the final stages.

Task 1: Your pupils will draw six parts of the food chain (below) in a group - one pupil will draw both the sun and one other part. Put pictures up on the board for them to draw from if helpful.

General Food Chain (younger pupils)	Specific Food Chain (older pupils)
Sun	Sun
Plant	Algae
Small insect (6 legs)	Mayfly larvae
Large insect (6 legs)	Great diving beetle
Fish	Salmon
Bird	Heron

Task 2: Once drawn, pupils can arrange them in the order of the food chain. Explain how energy moves up the food chain. You can use the words “producer,” “primary consumer” and so on, if suitable. Then ask your pupils to fold in half everything past the plant. Ask them to fold in half again everything past the first insect, and so on. The heron should have been folded 4 times (see image on right). Explain that although energy travels through the food chain as shown, less and less gets to the end as each animal uses it to grow, hunt, mate and so on.

– Ask: How the heron will get enough food to survive?

Answer: The heron must eat quite a few fish to survive.

– Ask: How many herons do they think might be in the food chain, and how many small insects?

Answer: There will only be a few herons, but many insects.

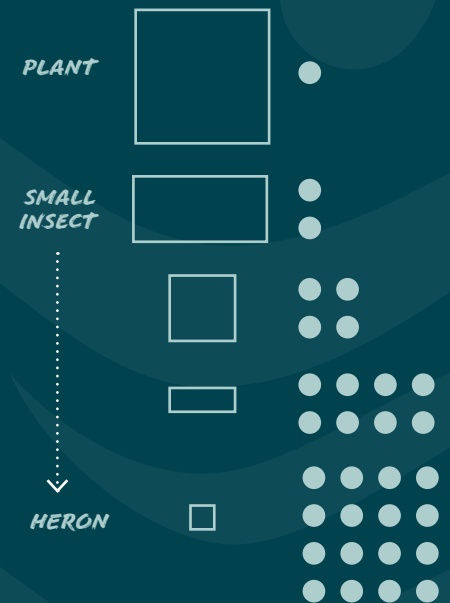
Task 3: Demonstrate how toxic chemicals or microplastics become concentrated along the food chain (“bioaccumulation”) by using sticky dots, or colouring in dots on the paper. Because each part of the food chain must eat multiple of the level below, each part doubles the toxin and therefore the dots. The plant starts with one toxin to represent chemical fertilisers that are often used in our farming. The heron will end up with 16 toxins. You could use this to practice maths and ask them to times by three or so on instead. What does this mean for the heron? It might get sick, and it might not be able to hunt or mate because of it.

Extension activity

Research chemical fertilisers, herbicides and pesticides. Research potential alternatives such as organic farming, companion planting (e.g. “nasturtium companion plant” – nasturtiums are easy to grow and all parts of them are edible although strong in flavour, which can be a fun classroom activity!).

Resources:

A set of six sheets of A5 paper for a group of five.



IDL/Social Studies/Health/Technology

LEARNING INTENTION

Young people will explore how streams and rivers flow through the landscape, experimenting through model-making to form an understanding of how water flows and carves the geography of places. They will investigate the impact of water on the environment as a result of climate change and how climate change might affect our environment in the future. Lastly, they will learn about the UN Rights of a child to access clean water.

Overview

The following IDL focused Learning Materials explore rivers and then how important water is to our lives and how climate change is affecting water flow and access to water around the world.

The first Learning Activity draws inspiration from the film 'Water' and looks at water flow in rivers and the impact of straightening a river's flow. Then they ask learners to work in groups to make a model of a river and the landscape it flows through, from its source to the sea.

The second Learning Activity explores the impact of climate change on rivers, biodiversity and water flow. This lesson would suit upper primary and goes into third level learning.

The Third Learning Activity explores the importance of clean water to life on earth. Through a series of suggested links the learners can explore the importance of water across the world.

(These learning materials are written to talk to learners directly).

Info

Watch the film clip on water. This film clip shows us how a landscape restoration project is restoring its water through allowing the river to flood as it wants to naturally. They are also putting in obstacles such as rocks into the streams to encourage the stream to curve around the landscape again, as it did in the past.

You will see from the film that ecologists, who are sort of nature scientists, are exploring what type of species of fish and insects live in the river and streams. Can you remember what kind of fish they would like to see in the streams and river in the future?

WATCH WATER

All lessons are linked to the Water Film



POINTERS FOR TEACHERS

The Outdoor Learning and Science sections of these learning materials allow your learners to get a really in-depth understanding of water. It would be really useful to spend some time with your learners exploring the knowledge they already have about water and then to reflect on what they have learned so far before embarking on the learning in this section which is focused on geography and health.

LEARNING ACTIVITY

.....

WATER FLOW

Introduction

In nature rivers create the landscape form. The water roars through the landscape over thousands of years, making river valleys, water falls or meandering rivers like the River Dee in the film.

People in the past tried to control where rivers and streams naturally wanted to go because of different types of land use at the time. They created straight rivers and streams. Do you know why people wanted to straighten the rivers? Do you think a straight river is more prone to flooding than a meandering river? Shall we find out? Let's experiment...

Task 1: Recreating a River – do you have a sand pit in your playground? Or some loose soil and rocks? Think about the journey a river makes from starting up in the hills to flowing down into the valley and then flowing out into the sea. Can you use the loose soil, stones and found objects to create a landscape for your river.

First start by creating a river with lots of bends and curves. Work together in a group moulding the soils or the sand and creating a space for your river. Then take a jug of water and test it to see where your river goes.

Then straighten the river through the valley, so the river flows from the high hills in a straight line down to the sea.

Alternative Classroom Activity for Task 1

Rather than create the model of the river out of stones and sand in the playground, you could make a model inside the classroom. This could be made with chicken wire for the land, covered in paper and then covered in PVA (to make it slightly waterproof). It could be made in mini form using a plastic tray as a base or you could make sections in a series of old plastic trays and then put them together. If the plastic trays were not needed again, you could drill holes in either end to allow water to flow from the higher one into the lower one. Half the class could create a straight river and the other half could create a meandering river.

Task 2: Prediction – what do you think will happen when the river is straightened? Do you think the river will flow slower or faster?

Well let's see shall we? Pour a jug of water on the hills and see where the river flows...

Task 3: Compare and Contrast – which river flows the fastest? Is it good the river flows fast? What are the advantages and disadvantages of a straight, fast flowing river and a slower, meandering river?

Working in groups and using your wipe board, compare the advantages and disadvantages of the two types of rivers:

POINTERS FOR TEACHERS

Don't worry about mess while the rivers are being created. You can ease mess concerns by covering desks with plastic sheets and running the pouring of water in the two rivers outside in the playground.

Advantages

Straightened River	Meandering River

Disadvantages

Straightened River	Meandering River

Task 3: Working in a group with a large sheet of A1 paper, design your perfect river: Where would it start? What kind of trees, plants and animals would live along your river? What kind of life would it sustain? What kind of fish, insects and birds would it support? How would you ensure it was healthy water? Would it be healthy for fish? And insect life? Well let's see shall we? Pour a jug of water on the hills and see where the river flows.

Suggested Format: Use coloured pencils to draw and make notes or use descriptive words to create a map of your perfect river. If you and your class has access to magazines, you could also use collage to create your maps

**POINTERS FOR
TEACHERS**

Don't worry about mess. Suggest the whole class has a discussion about the film and the effects of fast flowing rivers on insects and fish. Then introduce the idea of flooding and what type of river is most likely to flood. Then ask your learners to consider the impact of flooding on humans and on insects, birds, plants, grasslands and habitat.

You could ask learners to do Task 3 and then have the discussion, this might help you assess how much knowledge they already have or have gleaned from the film. Then ask them to go back and add anything else they can think of that has come up as a result of the discussion.

LEARNING ACTIVITY

.....

CLIMATE CHANGE

2

In the film they mentioned that the flood dykes along the river Dee were taken down so the river could flood again, creating more of a meandering river with great habitats for insects, fish and birds.

Introduction

Rivers, water and climate change are linked. In Scotland it is predicted that we will have more extreme weather in the future. This is already starting to happen with storms, flooding and droughts. A river meandering down a river valley is less likely to create flooding than a straight river. A river with more plants growing in it and other obstacles slows down the speed the river flows which also helps stop flooding.

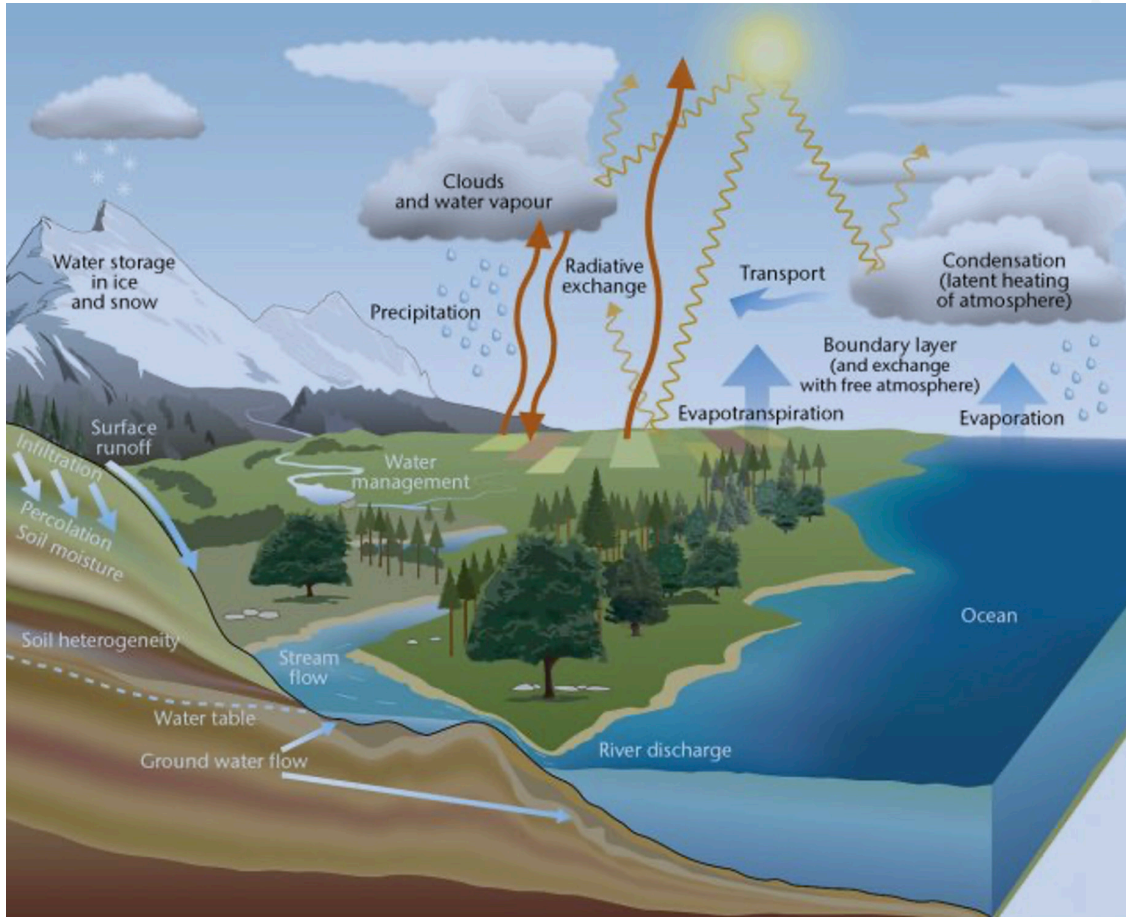
Our world is connected, what happens in Scotland can have an impact on rivers here and across the globe. For instance, if the water temperature goes up, sadly, fish might die and then the birds and animals who eat fish don't have anything to eat. Humans also eat fish so we might have to change our diet too. If you want to find out more about the impacts of climate change please follow the links on W22.

Water and climate change are inextricably linked. Climate change affects the world's water in complex ways. From unpredictable rainfall patterns to shrinking ice sheets, rising sea levels, floods and droughts - most impacts of climate change come down to water ([UN Water](#)).

Climate change is exacerbating both water scarcity and water-related hazards (such as floods and droughts), as rising temperatures disrupt precipitation patterns and the entire water cycle ([UNICEF](#)).



Task 1: Creating a Diagram



POINTERS FOR TEACHERS

Many of the examples of diagrams online are complex and use complicated descriptive words. We suggest that you do an example diagram or maybe more than one diagram to demonstrate how to communicate the information in diagram form creatively. Allow a creative response and then encourage the young people to use labels or descriptive notes. The drawing of the diagram is a learning process so it doesn't need to be visually perfect and it can be "loose" in style.

Using your model or outdoor experiment as inspiration, create a diagram showing how climate change is affecting water levels and water temperatures in rivers. You can show how this is impacting on the lifecycles of insects, fish and birds.

Suggested Format: A3 paper and coloured pencils.

LEARNING ACTIVITY

3

.....
UN RIGHTS OF A CHILD/
HEALTH AND WELLBEING

Introduction

The United Nations makes good rules that apply to all people across the world to provide a fair and equal world. They also have a special charter about the Rights of the Child.

“The right to water entitles everyone to have access to sufficient, safe, acceptable, physically accessible, and affordable water for personal and domestic use.”

How does drinking water make you feel? Does it feel good? Did you know the recommended amount of water for you to drink every day to stay fit and health is 6–8 cups of water? Your body is made up of 70% water so it's important to keep feeding it water, which like food, is important health-giving fuel.

Unfortunately, not everyone has access to clean drinking water – to find out more, follow the links below:

https://www.un.org/en/climatechange/science/climate-issues/water?gclid=CjwKCAjw__ihBhADEiwAXEazJgZaFR8P8icMbl2VLA8WGaM-EAyNmG3Yn7rqpm5cjHjpcZaALTbRyxocsAQAVD_BwE

<https://www.unwater.org/water-facts/human-rights-water-and-sanitation>

<http://childrensrightseducation.com/2-water.html>

Task 1: Brainstorm Solutions – why is water not clean? Where is it not clean? Why is there not enough water in some countries?

Can you think up some great solutions to how the whole world can get access to clean drinking water? First spend 5/10 minutes discussing your ideas. Then working in a team, brainstorm ideas for solving the global water crisis?

Suggested Format: A3 paper and coloured pens or pencils. One person writes down the ideas of the group.

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**POINTERS FOR
TEACHERS:**

Climate change and water shortages across the world can be difficult for young people to hear therefore it is important to be mindful about not causing them anxiety. This is why it is very important to empower learners to explore solutions to these challenges.

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