

## Wild about raingardens

### Learning activities (Sciences)

Experiences and Outcomes	Learning intentions	Success Criteria
<p>I can use my knowledge of the interactions and energy flow between plants and animals in the ecosystems, food chains and webs. <b>I have contributed to the design or conservation of a wildlife area.</b> <b>SCN2-02a</b></p> <p><b>Through carrying out practical activities and investigations I can show how plants have benefitted society</b> <b>SCN 2-02b</b></p> <p><b>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.</b> <b>SCN 2-05a</b></p> <p><b>I can report and comment on current scientific news items to develop my knowledge and understanding of topical science.</b> <b>SCN 2-20b</b></p>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• <b>Participate</b> responsibly in the conservation of natural resources and in avoiding waste and <b>recognise</b> that water is recyclable.</li> <li>• Correctly use the terms solid, liquid and gas (in relation to three states of matter) and with respect to the water cycle, terms melting, freezing, evaporation and condensation</li> <li>• <b>Describe</b> and <b>explain</b> a simple diagram of the water cycle</li> <li>• <b>Design</b> a concept for a rain garden within the school grounds</li> <li>• <b>Understand</b> the fluid nature of water and how it can change due to urban development</li> </ul>	<p>I can:</p> <ul style="list-style-type: none"> <li>• Demonstrate my understanding of the water cycle for nature and in urban environments</li> <li>• Give examples of water conservation</li> <li>• Name the three states of matter and their role in the water cycle</li> <li>• Explain the water cycle</li> <li>• Identify areas in the school grounds which flood</li> <li>• Understand the different properties of rain and how substrates and plants can slow the flow</li> <li>• Share my ideas of rain garden design with my class</li> </ul>

<b>Teaching and learning activities (including links to resources/interdisciplinary links)</b>	<b>Focus for assessment (including evidence)</b>
<ul style="list-style-type: none"> <li>• Discuss the transport of water in nature and how urban areas change the flow</li> <li>• Discuss the risk of flooding in the school/area/town</li> <li>• Discuss ways of slowing the flow of water down to prevent flooding</li> <li>• Explore the school grounds and identify risk areas, discuss what can be done to reduce the risk</li> <li>• Research different rain garden types and examine what the best type would be for your school ground</li> <li>• Re-enact water droplets and substrate to represent a rain garden</li> </ul>	<p>Class to create a concept board including photographs, ideas, drawings of:</p> <ul style="list-style-type: none"> <li>• Your ideas for a rain garden in the school</li> <li>• What plants should we plant?</li> <li>• What wildlife will visit the rain garden?</li> </ul> <p>Uses knowledge of water cycle and urban issues to explain the need for rain gardens to reduce flooding.</p> <p>Presents as Concept boards which will be followed up with Cumbernauld Living Landscape staff</p>
<p><b>Benchmark to support practitioners' professional judgement</b></p>	
<ul style="list-style-type: none"> <li>• Uses more complex vocabulary to describe changes of states of water for example, 'condensation' &amp; 'evaporation'</li> </ul> <p><b>SCN 1-05a</b></p>	

Additional assignment – Artist boards

<b>Experience</b>	<b>Codes</b>	<b>Outputs</b>
Literacy	0 to 4 – 09a, 10a 0 to 4 – 21a, 22a, 24a	Creating text to explain thoughts and ideas Spelling, structure and introducing new vocabulary to created texts
Art and Design	EXA 0 to 2-02a  EXA 0 to 2-03a	I have the opportunity to choose and explore an extended range of media and technologies to create images and objects comparing and combining them for specific tasks. I can create and present work that shows developing skill in using the visual elements and concepts

Additional curricular links:

Experience	Codes	Outputs
Literacy	LIT 0 to 4 - 02a LIT 0 to 2 – 04a Lit 1 to 4 - 28a, 29a LIT 0 to 4 – 14a LIT 0 to 4 – 21a	Taking turns to listen and talk Reading to find useful information Describe ideas in writing Find and use information Using vocabulary in descriptions
Mathematics (wksp 2 in particular)	MNU 0 – 11a - 4 -11c	Working as part of a group Taking turns to listen and talk Estimating areas which flood Marking areas of flooding on the ground and scaling up/down on to an A3 map Learning, talking and sharing opinions with others on topic Taking part in outdoor educational experiences
Health and wellbeing	0 to 4 – 01a 0 to 4 – 02a 0 to 4 – 09a, 10 0 to 4 – 14a 0 to 4 – 19a  0 to 4 – 23a 0 to 4 – 25a	Express feelings Deal with decisions Listen and talking to others about opinions Work as part of a group Opportunities to carry out different skills and activities outdoors Co-operation and communication Taking part in outdoor education experiences
Social Studies	0 to 4 – 08a	Explore and appreciate the wonders of nature



**Expansion topics:**

Sustainable Urban Drainage Systems – SUDs how have we engineered water storage to keep our rivers clean?

Non-native plants - the damage they can do to the environment and biodiversity

Native plants - how they benefit the environment and biodiversity

Pollinators – what do they do for us? Food sources i.e. crops, fruits, nuts

Pollinators – how can we help them? – habitat creation, native flowers

Mapping – what is around us?