

The Blue Fish Campaign

LESSON 2: WATER POLLUTION



Cross Curricular Links	Curriculum Objectives 2014 National Curriculum	Learning Intentions	Teaching Notes	Teaching Resources	Assessment Opportunities
<p>Art Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.</p> <p>Design Technology Make, select from and use a wide range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.</p>	<p>Science</p> <p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> • Recognising environments can change and that this can sometimes pose dangers to living things. • Pupils should explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation. <p>Geography</p> <ul style="list-style-type: none"> • Describe and understand elements of land use and distribution of natural resources. • As pupils progress, their growing knowledge about the world should help them to deepen their understanding of the interaction between physical and human processes, and of the formation and use of landscapes and environments. 	<p>Can I explain what pollution is and where it comes from?</p> <hr/> <p>Am I able to point out pollution sources and pathways?</p>	<p>Using PowerPoint 2 and the presentation script;</p> <ul style="list-style-type: none"> • Explain to the children what 'pollution' means. • Explain that pollution can harm fish, insects, plants and other wildlife living in streams and other water bodies. <hr/> <p>Discuss how pollution might get into water bodies including streams, ponds and the sea. Watch the Oil Care video animation: https://www.youtube.com/watch?v=Gj7eCeObNnQ</p> <p>Use the source, pathway receptor model to describe this.</p> <p>Get the children to suggest types of pollution that might get into a water body, such as a stream.</p>	<p>PowerPoint 2 Water Pollution</p>	<p>Children can understand what pollution is and how it can get into water bodies.</p>

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	<ul style="list-style-type: none"> Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. 	<p>Do I know what a Blue Fish means when it is painted next to a drain?</p>	<p>Talk about what type of water should go down a drain – clean rainwater only.</p> <p>Select several drains around your school and paint a blue fish next to them.</p> <p>Allow the children to find them and explain what the blue fish represents: that only clean water should enter these drains because the drains discharge straight into the environment and not taken to a water treatment works.</p> <p>Draw and create your own Blue Fish, using the Activity 2 worksheet provided.</p>	<p>Activity 2 Blue Fish Design</p>	<p>Children can be creative when designing a fish and decorating it using various materials.</p>
		<p>Can I suggest ways to stop pollution?</p>	<p>Discuss with the children how they might be able to help prevent pollution.</p> <p>Watch the pollution prevention animation: https://www.youtube.com/watch?v=b47IcAODYfs</p> <p>Create a pollution prevention plan for your school following the instructions on PowerPoint 2 and presentation script.</p> <p>How to carry out a waste audit for your school: https://www.gov.je/Environment/Ecoactive/Campaigns/Pages/WasteAuditCampaign.aspx</p>	<p>Activity 3 Pollution Prevention Plan</p>	<p>All children have taken part in creating a school Pollution Prevention Plan. Working together as a team.</p>



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		<p>Can I spot potential pollution sources, and suggest actions to stop pollution?</p>	<p>Let the children complete the Stop and Spot Activity 4 worksheet.</p> <p>What you need: worksheets, pencils.</p> <ul style="list-style-type: none"> Using the worksheet, spot the stream pollution happening in the picture. Pollution caused by humans includes: <ul style="list-style-type: none"> Littering Car oil leak Pollution from factories Garden and organic waste Fertiliser Pet droppings Silt from a building site Circle the pollution points on the picture. Children can then go through and decide the best way to prevent the stream being polluted, choosing out of the options: Bin it, Trap it, Stop it, and Fix it. <p>Bin it = throwing in the bin or compost heap. Trap it = put the waste in a contained space or trap it behind a wall so it cannot flow into the stream. Stop it = do not do this as it is bad for the environment. Fix it = fix the problem so that it will not pollute the environment.</p> <p>Answers: 6 polluting activities: 2 – bin it (dog poo & Litter), 1 – Trap it (factory), 1 – fix it (car), 2 – Stop it (organic waste and cement)</p>	<p>Activity 4 Stop and Spot activity sheet</p>	<p>Children can complete the worksheet.</p>



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		<p>Am I able to understand how the water cycle works in my local area?</p>	<p>The walking with water activity is a great way to improve understanding of surface water drains and how pollutants can enter a water body.</p> <p>This involves walking from your school, following a map, to identify the surface water drains to the nearest discharge point (e.g. stream, reservoir or the sea) and see what pollutants you find on the way.</p> <p>Walk through your local area following a map, looking for surface water drains to their outflow area (could be a stream, reservoir or coastal waters) and discover how pollutants are carried in the water cycle. Practice map skills and tally the types of pollution and number of drains you see on the way. Create bar charts using the tally data collected.</p> <p>What you need: maps, pencils, clipboards, camera, sample bottles, protective gloves. See Activity 5 worksheets for an example of a map and tally sheet.</p> <ul style="list-style-type: none"> • Identify the location of road drains in the vicinity of your school and the path they take to the discharge point into the environment. • Create a map which allows the pupils to follow the surface water drains from your school to the discharge point. • To practice their map skills, get the pupils to mark on their maps the location of each drain. 	<p>Activity 5 Walking with Water The Rainwater Journey</p>	<p>Children can identify processes of the water cycle occurring around their school.</p>



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			<ul style="list-style-type: none"> • Using the tally table, let the pupils count and tally the number of pollution types they see, along with the number of surface water drains. • In groups, let the pupils take pictures of the drains and any pollution. • Draw up and create bar charts using the tally data collected during the walk. • Option – collect a water sample from a water butt from your school and one from the outflow at the end of your drain walk. Take it to the States Analyst who will test the water for pollutants to see the difference. <p>Parameters could be pH, nutrients, conductivity etc.</p>		

