

BE THE WAVE AR FRIG Y DON

Marine Litter

Lesson Plan



cadwch keep
gymru'n wales
daclus tidy

MARINE
CONSERVATION
SOCIETY



UNDEB EWROPEAIDD
EUROPEAN UNION



Llywodraeth Cymru
Welsh Government

Cronfeydd Strwythurol a
Buddosoddi Ewropeaidd
European Structural
and Investment Funds



Ariennir gan
Llywodraeth Cymru
Funded by
Welsh Government



Aims
<ul style="list-style-type: none"> • Understand the definition of marine litter, where it is found and the impact it can have on the marine environment • To raise awareness of issues concerning marine litter and to encourage students to act constructively to make a real difference
Objectives
<ul style="list-style-type: none"> • Describe the common types of litter found in the ocean • Explain that litter has a social and economic impact on a community • Apply knowledge of the impact of marine litter to everyday life through #BeTheWave actions and Eco-Schools programme

Eco-Schools Topic	Global Goals
<ul style="list-style-type: none"> • Litter • Waste Minimisation • Water 	<ul style="list-style-type: none"> • 12 Responsible Consumption • 13 Climate Change • 14 Life Below Water

Links to the Curriculum for Wales	
Purpose	
<p>Ambitious and capable learners who:</p> <ul style="list-style-type: none"> • Can explain the ideas and concepts they are learning about • Use digital technologies creatively to communicate <p>Ethical and informed citizens who:</p> <ul style="list-style-type: none"> • Engage in contemporary issues based upon their knowledge and values • Understand and consider the impact of their actions when making choices and acting • Show their commitment to the sustainability of the planet <p>Healthy, confident individuals who:</p> <ul style="list-style-type: none"> • Have secure values and are establishing ethical beliefs 	
What Matters	Progression Step: Three/Four
<p>Science and Technology</p> <ul style="list-style-type: none"> • Engage with scientific and technological evidence to inform my own opinions • Explain how the impact of our actions contribute to the changes in the environment and biodiversity • Recognise that changes in materials affect their properties and uses • Recognise that our planet provides natural materials and can explain why they may have been processed to make them useful. <p>Languages, literacy and Communication</p> <ul style="list-style-type: none"> • Select and adapt the appropriate language for a range of audiences and purposes, conveying meaning effectively to the audience 	
DCF	Progression Step: Four
<p>Creating Digital Content</p> <ul style="list-style-type: none"> • Select and use a variety of appropriate software, tools and techniques to create, modify and combine multimedia components for a range of audiences and techniques to create, modify and combine multimedia components for a range of audiences and purposes such as text and images. 	



LNF	Progression Step: Four
<p>Writing</p> <ul style="list-style-type: none"> • Make informed choices about vocabulary, idiomatic and figurative language, and syntax in order to express myself with fluency, accuracy and clarity. • Adapt my writing style, choosing and using the best structures for different contexts and purposes, e.g. to successfully describe, explain, persuade, discuss. • Write about my thoughts, feelings and opinions, using a range of techniques, e.g. emotive language, hyperbole, choice of pronouns (you, we), to show impact. 	
Cynefin	
<p>Investigate litter in school and local community News item concerning Welsh beaches.</p>	

Activity 1	Resources and Equipment
<p>What is Marine Litter? Question - What is Marine Litter? Answer – Waste created by humans which is discharged in the marine environment.</p> <p>Present the marine litter images giving time for students to observe what they see. Ask the questions: What items do you see? What material is the item made from? How does it make you feel? Why is it there?</p> <p>Class “Hands Up” exercise</p> <p>Study the types of marine litter on the slide. What areas in your school or community are you likely to find some of these littered items? Look at each type of item and create a list of reasons why they are found in the places you identified? Ask pupils to think of a solution for each reason.</p> <p>In groups, discuss these reasons and generate some ideas to reduce the litter. All groups feedback to the whole class. Can the class take some of their ideas forward? Alternatively, make sure suggestions are passed on to the Eco Committee or School Council and ask for feedback.</p>	<p>Presentation</p> <p>Presentation - litter images Pen and paper</p> <p>Presentation</p> <p>Presentation</p>




Activity 2	Resources and Equipment
<p>How did the litter get there?</p> <p>In the MCS Beach Clean 2020 Volunteers found an average of 425 items of litter per 100m of UK shoreline. Create a class list of the top items you believe might be found on a beach litter pick.</p> <p>Look at the Great British Beach Clean 2020 report, discuss and decide which material heading your listed items belong. The recent report highlights the amount and types of litter found on UK beaches, 2020 sadly reports on an increase in PPE pollution.</p> <p>To expand this activity further explore the Marine Conservation Society Secondary Education pack.</p> <p>The following events in Wales can illustrate where litter has been discarded on land or lost at sea:</p> <ul style="list-style-type: none"> • Barry Island: Litterbugs' complete disregard for beach. <p>People left local beaches covered in plastic bottles, nappies and wipes - much of which were washed out to sea when the tide came in.</p> <p>Consider the number of impacts caused by people's behaviour on the local area. Create a mind map including headings such as public health and safety, local wildlife, tourism and publicity and the extra work and expenditure for the local authority.</p>	<p>Presentation</p> <p>Presentation / news article</p>

Activity 3	Resources and Equipment
<p>How long will it last?</p> <p>Depending on what material an item is made from will determine how long it takes to breakdown. Share the items listed in the Natural Resource Wales Waste Timeline and ask pupils to estimate the order of the decomposition rate. Share the correct time frame. How close was the estimation?</p> <p>Using the infographic as an example ask students to create their own, referencing the most common litter visible in and around the school.</p> <p>Create social media posts highlighting how long the litter found in school could stay around in the marine environment if it isn't disposed of correctly.</p>	<p>Presentation</p> <p>Presentation</p> <p>ICT</p>



<p>A campaign that highlights how long plastic can remain in the ocean is Lego Lost at Sea. Watch the video that shows Lego (and lots of other plastic pieces) washing up on Perranporth beach in Cornwall because of a container spill in 1997 where over 5 million pieces went into the sea.</p> <p>https://youtu.be/3FxfXVuHRjM</p>	
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Alternative Activities	Resources and Equipment
<ul style="list-style-type: none"> • Design a presentation, to be used for a school assembly, highlighting issues relating to marine litter. Use this as a platform to introduce and inspire participation for whole school action. • Encourage the class to become engineers of the future. Invent and produce a design for a machine that is capable of cleaning the ocean of all the litter. Investigate the work of Boyan Slat at https://theoceancleanup.com/about/ • Investigate what organisations produce the most littered items. Analyse Surfers Against Sewage Brand Audit Report 2021. https://www.sas.org.uk/wp-content/uploads/SAS-BrandAudit2021-Digital.pdf 	

 #BeTheWave
<p>Apply the knowledge gathered in the lesson into action as ethical and informed citizens. It is an important aspect to ensure students know they have the power to enact and make changes within their own lives and within the school. It is also a positive step which helps to balance some of the negative impacts explored within the lesson.</p> <p>Decide on an action/actions to take forward either as individuals or as a class, these are some suggestions, or the class could generate their own.</p>
<p>School:</p> <ul style="list-style-type: none"> • What impact does your school have on local litter problems? Investigate, raise awareness and find solutions! Involve different subject areas to play a part e.g through music, drama or art. • Invite environmental organisations and the local authority into your school to share information and highlight problems and positive actions. • Stop Single Use Plastic and become a Plastic Free School https://www.sas.org.uk/take-action/
<p>Individual:</p> <ul style="list-style-type: none"> • Buy less! Consider your buying habits and make a pledge to consider swoping your single use items to a more sustainable alternative. • Investigate the Generation Ocean campaign and it's youth and inclusion section. Register for regular information. • Visit the Kids Against Plastic website, listen to the Plastic Clever TED talk and decide how you can become more plastic clever in your everyday lives and be inspired to do more!



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