

Eco-Sgolion



# Class Led Eco-Action

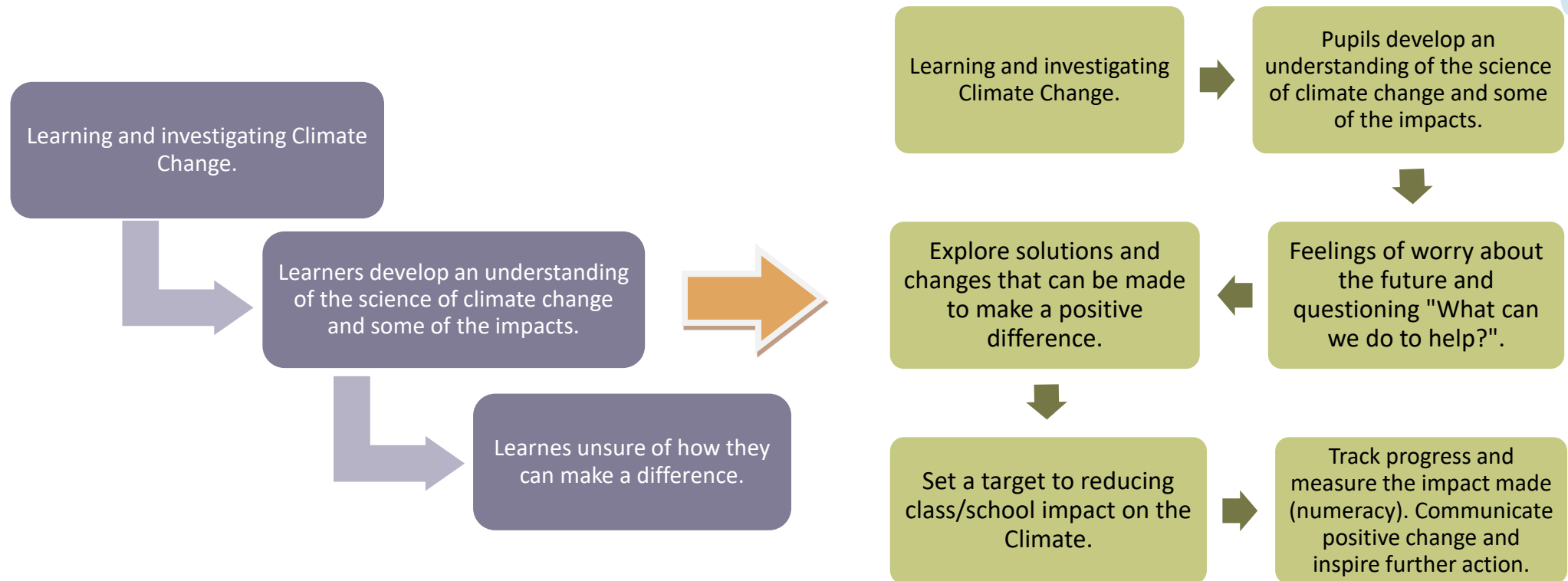


# Class Led Eco-Action

## Turn environmental learning into positive action!

The Curriculum for Wales supports pupils to direct their own learning and pupils are more enthusiastic than ever to learn about our planet and the challenges it is facing. Eco-Schools Wales are excited to support motivated students in taking steps to become ethical, informed citizens.

Learning about environmental issues can become overwhelming at times and lead to increased worry or anxiety. It is therefore increasingly important that students are given the opportunity to **use their knowledge to take positive action and be empowered to make a difference**. The two diagrams below show how this might look in practice in relation to Climate Change, with the scenario on the right exemplifying a wholistic approach.



## The Eco-Schools Programme

The Eco-Schools programme's framework is built to facilitate pupil-led action for environmental change. These actions can be carried out within classes or by a committee of pupils and used across the whole school. By enabling pupils to turn their learning into action, whilst still linking into key skills and 'What Matters' statements, we build confidence and understanding that each person has the power to affect change and inspire others.

We don't expect everyone to be eco-experts, we understand that it can be daunting trying to know what actions can be taken to make a positive impact.

This document explores how class-based learning has led to class-based action with examples from schools across Wales. We also include links to useful resources. The ideas aren't exhaustive so if you need more support, please [get in touch](#) and we will be very happy to provide further ideas or help.

Below, you will find a breakdown of different themes. Each theme includes examples which demonstrate how class-based learning led to class-based actions and show a **measured positive outcome**. Measuring the difference that you make is a really important part of the process as it demonstrates the impact made and shows where there is room to make further improvements. Additionally, it's a great way to use data handling and practise numeracy skills through meaningful learning!



# Linking to the Sustainable Development Goals

The **Sustainable Development Goals** (SDGs) are a set of targets, detailed by the United Nations, which aim to tackle global issues including environmental and climate issues. Each goal describes a topic and includes a list of targets detailing how to achieve said goal.

The SDGs are a great tool to link to your Eco-Schools actions as they demonstrate that your local work adds to the collective efforts being made globally.

You can find more information and resources about the SDGs [here](#).

 <p><b>2 ZERO HUNGER</b></p>	<p><b>Zero Hunger:</b> End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p>	 <p><b>3 GOOD HEALTH AND WELL-BEING</b></p>	<p><b>Good Health and Well-being:</b> Ensure healthy lives and promote well-being for all at all ages.</p>	 <p><b>4 QUALITY EDUCATION</b></p>	<p><b>Quality Education:</b> Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>
 <p><b>6 CLEAN WATER AND SANITATION</b></p>	<p><b>Clean water and Sanitation:</b> Ensure availability and sustainable management of water and sanitation for all.</p>	 <p><b>7 AFFORDABLE AND CLEAN ENERGY</b></p>	<p><b>Affordable and clean energy:</b> Ensure access to affordable, reliable, sustainable and modern energy for all.</p>	 <p><b>11 SUSTAINABLE CITIES AND COMMUNITIES</b></p>	<p><b>Sustainable Cities and Communities:</b> Make cities and human settlements inclusive, safe, resilient and sustainable.</p>
 <p><b>13 CLIMATE ACTION</b></p>	<p><b>Climate Action:</b> Take urgent action to combat climate change and its impacts.</p>	 <p><b>14 LIFE BELOW WATER</b></p>	<p><b>Life Below Water:</b> Conserve and sustainably use the oceans, seas and marine resources for sustainable development.</p>	 <p><b>15 LIFE ON LAND</b></p>	<p><b>Life on Land:</b> Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>

# Biodiversity



The incredible diversity of life forms, including plants, animals, and fungi, found across the globe constitutes biodiversity.

In Wales, we have incredible plants and animals; bottlenose dolphins swim off the west coast, otters glide through our rivers, badgers dig in our woodlands and red kites soar in the skies above us.

Through classroom discovery linked to biodiversity, pupils may discover the positive and negative impact we have on local and global ecosystems. It is important to be able to take the learning and turn this into a positive action to empower learners and know that we can make a positive difference to our world.

## Action for Biodiversity – local

Action	Impact	Useful links
<b>Plant a Woodland/Hedge:</b> After learning about the role of trees in our ecosystem and how they contribute to the fight against climate change, Blaenhonddan Primary took part in a whole school tree planting day where every child planted a tree and committed to nurture it.	315 trees were planted, in time reducing flooding, providing habitat, shade and shelter, and helping to tackle climate change. Yearly monitoring of the tree's progress and biodiversity surveys will take place.	Woodland Trust: <a href="#">Free Trees for Schools and Communities - Woodland Trust</a>
<b>Installing bird boxes:</b> After carrying out the RSPB Big Schools' Birdwatch, Rhydri Primary discovered different birds need different nest boxes. They then incorporated some	Number of bird boxes created counted and their usage monitored throughout the nesting season.	RSPB: <a href="#">Big Schools' Birdwatch</a> ( <a href="https://www.rspb.org.uk">rspb.org.uk</a> )

<p>Science and Technology skills and built boxes for robins and blue tits.</p> <p>Pentip C in W Primary decided to install swift boxes and ran an awareness campaign on the importance of urban wildlife after finding out that Swifts were declining.</p>	<p>The RSPB 'Big School Bird Watch' was introduced to measure increase in bird species in the school grounds.</p>	<p><a href="#">Where To Put A Bird Box   Nestboxes - The RSPB</a></p>
<p><b>Creating a School Pond</b></p> <p>After learning about the value of ponds for biodiversity, Birchgrove Primary pupils designed and built a wildlife pond in their school grounds. They researched and purchased all materials and pond plants, bringing in their numeracy and enterprise skills.</p>	<p>An initial survey on pond life was carried out highlighting species diversity.</p> <p>This will be carried out yearly to measure the increase in diversity of life with age.</p>	<p>RSPB: <a href="#">How to Make a Wildlife Pond in Your Garden - The RSPB</a></p>
<p><b>Building Hedgehog Homes</b></p> <p>Baglan Primary researched hedgehogs and decided to build hedgehog homes in the school grounds, when they found out that hedgehogs are endangered. They ran an awareness campaign to encourage local households to create hedgehog highways and hedgehog habitats in their gardens.</p>	<p>Number of hedgehog homes recorded and monitored for use.</p> <p>At the start of the action: 0% - garden hedgehog homes 43% - garden hedgehog homes (after one year) with 83% stating their intent to create hedgehog friendly gardens.</p>	<p>British Hedgehog Preservation Society: <a href="#">Hedgehog Homes (britishhedgehogs.org.uk)</a></p> <p><a href="#">Link your garden with a hedgehog highway (hedgehogstreet.org)</a></p>
<p><b>Leave it Wild!</b></p> <p>Cefn Glas Infants decided to let the plants in their nature area grow wild so they could investigate how that would affect the biodiversity on the school grounds. They mowed pathways through the wild areas, so they could be explored without disturbing the wildlife.</p>	<p>A collage of pictures was created with species of plant and minibeasts before and after the re-wilding of the nature area.</p> <p>The pupils were amazed at how the diversity of life increased.</p>	<p>Wildlife Trusts: <a href="#">Activities   Wildlife Watch</a> – search for 'Leave Garden Wild'</p> <p>Plantlife: <a href="#">About - No Mow May (plantlife.org.uk)</a></p>

<p><b>Build a Minibeast Habitat</b></p> <p>After completing the environmental review in class, Bishopston Primary, were concerned that there were not many minibeast habitats in their school grounds. They designed and created a bug hotel to add to their school grounds. They surrounded it with log piles, stone piles, and old carpet squares to enhance the habitat.</p>	<p>Regular minibeast surveys have been carried out using a 'Big Scrapbook' approach. This includes photos and hand drawn pictures of species discovered, highlighting an increasing trend in species diversity.</p>	<p>Wildlife Trusts: <a href="#">Activities   Wildlife Watch</a> – search for 'How to Build a Bug Hotel'</p>

## Action for biodiversity – global

Action	Impact	Useful links
<b>Deforestation</b> Ysgol Caer Drewyn became involved with a project at Chester Zoo where they investigated Palm oil and the effects of deforestation on species, particularly endangered species. They wrote to Blue Peter, raised money as a school to adopt an Orangutan, wrote newspaper articles and wrote to their County Council to ask them to stop using Palm Oil products in their kitchens.	The school says that as well as understanding what palm oil and deforestation is and the impact that it's having, 'the children NOW really think about how choices they make can affect the future and how choices we make here can affect animals and communities in different parts of the world! We say a small difference can make a big difference.'	<a href="#">Size of Wales</a>  <a href="#">WWF</a>
<b>Oceans</b> In their classwork, year 4 at Marshfield Primary, celebrated World Ocean Day. This led to discussion about ocean pollution, particularly plastic and the Great Pacific Garbage Patch which then developed into research in order to cultivate a better understanding of the issues and solutions. Equipped with all this new knowledge and using their digital skills, year 4 then created a fun video which they were able to share with their peers and the wider school community.	The whole school watched the video created by Year 4 all about ocean pollution. They gained a better understanding of how litter on our streets ends up in our oceans and harms sea life, which encouraged everyone to take action as there was lunch/snack litter in the school grounds. This was then followed up with their annual Save the World September where all members of the school community were challenged to reduce the amount of single use plastic in their lunchboxes and snacks. The eco-committee saw a further reduction in snack litter as a result.	<a href="#">WWF Ocean Pollution</a>  <a href="#">Eco-Schools Wales - #BeTheWave</a>
<b>Rainforest conservation</b> A year 4 class in Powys were learning about rainforests and how important they are as a habitat, not to mention as carbon sinks. They learned that nature works in cycles and used this new knowledge to create terrariums – a miniature, self-sufficient, micro-climate in a jar. Through their learning, Year 4 discovered how delicate the rainforest eco-system is and how it is being damaged by human actions, which in turn is destroying habitats.	They raised awareness in the school and community via an assembly. They then used their numeracy skills to measure the area of their school grounds and raised money to buy an equivalent area of rainforest through Steve Backshall's 'Operation Ocelot' <a href="#">Love Food Hate Waste / Preventing food waste</a> .	<a href="#">How to make a terrarium   DIY garden in a jar   Blue Peter - CBBC - BBC</a>  <a href="#">Operation Ocelot: All you need to know about our project for children to save nature with Steve Backshall - World Land Trustt</a>

# Climate Change and Energy



When learning about Climate Change in class, pupils may explore the causes of Climate Change; how humans are creating greenhouse gases and the impacts we are seeing, both locally and globally. Understanding how we are causing greenhouse gases in our daily life and how we can take positive action to reduce them is incredibly important for pupils to feel empowered and know that we can make a positive difference to our world.

## Reducing carbon footprints

Action	Impact	Useful links
<b>Meat-Free days</b> New Inn primary looked into increasing meat-free meals at home. They did some research to find out how many meals were meat free already and then put together some tasty recipes to send home and inspire families.	Pupils were thrilled to see a 20% increase in meat free days from pupils and staff following their awareness raising campaign.	<a href="#">Good food habits   Love Food Hate Waste</a>  <a href="#">How eating less meat can reduce our carbon emissions - Energy Saving Trust</a>  <a href="#">Climate change: 'Eat locally produced meat to save planet' - BBC News</a>
<b>Reducing Energy use</b> Year 6 in Rogerstone Primary investigated their energy use through the Energy Sparks website and learned about how our energy use is linked to climate change. They then set up Turn-Off Tuesday where all lights should be turned off wherever possible in order to reduce energy used (and therefore CO2 created).	By monitoring the amount of energy used on each day, pupils found that Turn-Off Tuesday used 27% less energy than a normal day. This has really encouraged further turn-off activities.	<a href="#">Energy Sparks for schools   Energy Sparks</a>

<p><b>Renewable energy school</b></p> <p>Pupils in Ffynnon Taf Primary spent time researching renewable sources of energy as part of a project to design their new 21<sup>st</sup> century school. Classes undertook extensive research including:</p> <ul style="list-style-type: none"> <li>• Visited newly built local schools to take photographs and sketches of key features and materials used etc.</li> <li>• Made educational visits to local architects to learn how to use and create technical drawings.</li> <li>• Created initial design sketches for discussion with the school community, architects and environmentalists.</li> <li>• Designed an online survey to collect information about what features the community wanted in the school.</li> <li>• Collaborated in groups to create scale models and technical drawings in partnership with an artist's impression of the new school.</li> <li>• Submitted formal letters to the planning authorities highlighting the importance of renewable energy.</li> <li>• Presented their work to an invited audience of stakeholders and created a bi-lingual advertising brochure for the new development.</li> </ul>	<p>The most significant impact is that the pupils have been able to shape the future of their school and will have the first school heated by Geothermal sources! Other impacts include:</p> <ul style="list-style-type: none"> <li>• The school community undertook a home energy audit to help families reduce energy use.</li> <li>• The Eco committee shared tips and ideas with the local community for reducing their energy footprint.</li> </ul>	<p><a href="#">Research renewable energy cooperatives or initiatives in your area.   Energy Sparks</a></p> <p><a href="#">Investigating energy in the UK   KS2 Geography   Year 5 and Year 6 - BBC Bitesize</a></p>
<p><b>Solar panel school</b></p> <p>After having solar panels fitted in Ysgol Comins Coch, an excellent opportunity was realised to try and work out how much energy was being produced and try and work out how many trees would need to be planted in order to store the same amount of CO<sub>2</sub>. This was a great way to bring eco-based numeracy into the class in an authentic and meaningful way.</p>	<p>They calculated that since installing the panels the school has saved 5,055.02KG of CO<sub>2</sub> emission, which is the equivalent of 231 trees planted!</p>	<p><a href="#">Egni Co-op   Wales Solar PV Co-op</a></p>

## Removing carbon from our atmosphere

Action	Impact	Useful links
<b>Tree planting on school grounds</b> Pupils from schools across Wales took part in the My Tree, Our Forest: For schools project. Whole classes learnt how to plant trees and why they were so positive for our planet.	Over 8000 trees were planted in 100 schools across Wales. Pupils learnt how to care for the trees and why they are so important in our fight against climate change.	<a href="#">Free Trees for Schools and Communities - Woodland Trust</a>  <a href="#">National Tree Project for Wales - Teacher Pack .pdf</a>
<b>Project Seagrass</b> Coychurch Primary linked to Project Seagrass to raise awareness of seagrass, highlighting its importance for capturing carbon and in sustaining fishing grounds. Pupils were able to learn about the amazing plant through class-based workshops run by the organisation. They also took part in planting programmes as well as creating assemblies and videos to be used in the wider school community.	100 bags of seagrass were planting as part of a school-based workshop. These were then planted into the sea in Dale, Pembrokeshire. Class 2 produced a video on the experience.	<a href="#">Education Resources   Project Seagrass</a>  <a href="#">Rohan's Seagrass film - YouTube</a>
<b>Peatland restoration and Protection</b> Pupils at Ysgol Ysbyty Ifan and Pentrefoelas learned about the importance of peat to habitats and long-term carbon storage. They learned that peatland is often damaged through human activity and decided to raise awareness by collaborating to create a rap, spreading the message of how important peat is.	The video was released on Youtube and has had over 2800 views.	<a href="#">Fy enw i yw PEAT! - My name is PEAT! - YouTube</a>

# Waste Minimisation and Circular Economy



What happens when we throw things away? Where is away? Should we just be throwing things away or does the saying one man's trash is another man's treasure hold merit? Currently, the Welsh Government reports that Welsh household recycling rates are 1<sup>st</sup> in the UK, 2<sup>nd</sup> in Europe and 3<sup>rd</sup> in the world however is this enough? The Welsh government wants us to become a zero-waste **circular economy** by 2050 but what does this mean? How can we take full responsibility for our waste?

Action	Impact	Useful links
<p><b>Reducing Lunch Waste</b></p> <p>Pupil's in Ysgol Corneli grew concerned about the amount of waste packaging being produced during lunch times when their attention was brought to the issues of single use plastic through class-based learning.</p> <p>After research and discussion with their classmates, the pupils decided to remove the general waste from the dining hall so that pupils must now take their litter home with them. They hope to see a decrease in the single use plastic being used when parents realise how much is accumulated after a week of packed lunches.</p>	<p>Removal of the waste bag in the dinner hall meant that 5 bags a week were saved from landfill equalling 195 in the year.</p>	<p><a href="#">Reducing Food Waste at Waun Wen Primary - Keep Wales Tidy - Eco-Schools</a></p> <p><a href="#">Waste-Minimisation-1-LKS2-Wormery.pdf (keepwalestidy.cymru)</a></p>
<p><b>Plastic is not Fantastic</b></p> <p>Reducing single use plastics throughout the school.</p>	<p>Learners noticed that not only did the amount of plastic coming from the school kitchen reduce, but learners got on board too. The Eco-Committee noticed an increase in</p>	<p><a href="#">Litter and wildlife   North Wales Wildlife Trust</a></p>

<p>Pupils in <b>Ysgol Knighton</b> noticed that a lot of the food from the canteen was being served with clingfilm used to seal it. After some detective work, they discovered that the kitchen used a lot of clingfilm on a daily basis. This upset the pupils as they had recently been learning about ocean plastics and how animals and the food chain are affected.</p> <p>Learners from year 4 took this very seriously and collected data on how much clingfilm was being used. They then worked with the kitchen staff to look at alternatives to clingfilm and asked kitchen staff to help them achieve their target of reducing plastic by swapping to the alternative options.</p>	<p>Tupperware and bees wax wraps being used in pupil lunches.</p>	<p><a href="#">World Refill Day - Refill - Join the Refill Revolution</a></p>
<p><b>Repurposing T-Shirts to replace plastic bags.</b></p> <p>Students at Coleg Cymunedol Y Dderwen (CCYD) wanted to raise awareness of the issues around single use plastics by running workshops which would be fun and contribute to mental health and wellbeing.</p> <p>The pupils offered an upcycling activity which encouraged pupils to bring an old unworn t-shirt into school and turn it into a shopping bag, therefore reducing waste both in the textile industry and single use plastic waste.</p>	<p>22 learners and 4 staff attended this workshop and discussed the issues that they were trying to avoid and the climate impact that the fashion and textile industry can have.</p> <p>They also promoted the activity at the Bridgend 'Festival of Learning' in July. Which included participants from every school in Bridgend – meaning they were able to reach an even wider audience.</p>	<p><a href="#">Pupil Power - Plastic Free Schools - Surfers Against Sewage</a></p> <p><a href="#">Waste-Minimisation-Fashion-conscience.pdf (keepwalestidy.cymru)</a></p>

<p><b>Milk swap</b></p> <p>The year 5 and 6 pupils at Pen Y Fro primary felt strongly about plastic milk bottles because they were learning about looking after their planet in their topic 'One world, One chance'. They were intrigued as to why we were still using plastic milk bottles when there is a global issue of trying to reduce plastic. The eco- committee then told them about another school in Monmouthshire that one of the year 6 committee members had read about with their parents.</p> <p>Pupils found out that the council are responsible for our milk, they decided that that they would write to them and ask if they could meet to discuss the issue. The council responded and said that they would be happy to meet. The pupils then put a presentation together to deliver to the council members.</p>	<p>Everyday the school uses 128 milk bottles in the Foundation phase classes. That's 640 milk bottles every week. There are 39 school weeks in the year, which means the school use a total of 24,960 milk bottles every year.</p> <p>There are 63 primary schools in Swansea which means that is around 1,572,480 milk bottles are being used every year.</p> <p>The council have emailed the school to say that the issue is being looked at and they will inform us when a decision has been made. They are hopeful that this has raised awareness and that change will take place to reduce not only plastic in our school but in the whole of Swansea.</p>	<p><a href="#">Climate Emergency - Monmouthshire</a></p> <p><b>Educating our children and community engagement</b></p> <ul style="list-style-type: none"> <li>• Monmouthshire schools are actively promoting conservation, recycling and 'plastic free messaging'. Many schools in Monmouthshire are part of the eco schools programme</li> <li>• Monmouthshire Schools were previously getting through 11,500 plastic milk bottles per week, or 437,000 a year now all bottles are glass with milk produced within 30 mile radius bottled in a glass reusable bottle, delivered by a milkman</li> </ul> <p><a href="#">Comparing Milk Packaging Options for Monmouthshire Primary Schools   WRAP (wrapcymru.org.uk)</a></p>
<p><b>Swap Shops, uniform, costumes and beyond</b></p> <p>Pupils in Bryn Awel Primary were shocked when they learned that the fabric industry has such a negative impact upon the climate, fast fashion contributes approximately 10% of global emissions! After finding out that many items of clothing which are disposed of are still in fine condition, and that it</p>	<p>A cross-section of 54 pupils were surveyed <i>before</i> and <i>after</i> the actions on 'waste reduction' including the enterprise 'pop up shop.' There was a measurable impact on behaviour, attitudes, knowledge and understanding (data given) and over 115 pieces of school uniform prevented from going to landfill.</p>	<p><a href="#">'Pop up' shop for unwanted school uniform - Keep Wales Tidy - Eco-Schools</a></p> <p><a href="#">BBC Newsround – Understanding fast fashion</a></p>

<p>takes 27,000 litres of water just to make one cotton T-Shirt, the pupils felt they needed to act. They decided to set up a uniform shop to sell on outgrown uniform. They ran a whole school competition to design a poster for the event and did a before and after survey to gather data.</p>	<ul style="list-style-type: none"> <li>• <b>Is it okay to wear uniform that has been worn before?</b> Before: 87% said yes, After: 100% said yes</li> <li>• <b>Do you know why we are trying to reduce waste from clothing?</b> Before: 46% said yes, After: 81% said yes</li> <li>• <b>Children felt they improved their knowledge</b> of where materials for clothes come from and how they are made.</li> <li>• <b>100%</b> of children said they are now aware that reusing school uniform can save money and help the environment.</li> </ul>	
<p><b>Christmas Jumper Shop</b> Pupils in Ysgol Bodnant decided to hold a sale, focussing on Christmas Jumpers. They already recycle coats and school uniform very successfully so felt there would be a good chance of the scheme working. Year 4 pupils learned about how fashion isn't very sustainable and can contribute to environmental change. They also found out how discarded clothes end up in landfill.</p>	<p>Well over 30 Christmas jumpers were donated for the sale and it was a huge success. Staff later understood that some lower income families had used the sale to purchase jumpers and had expressed what a great idea it was. Money raised from the sale was donated to charity.</p>	<p><a href="#">Save the Children – Sustainable Christmas Jumper Swap</a></p>
<p><b>Crisp packet blankets</b> Many children in Ysgol Trewlewis had raised the issue of litter in the street – notably crisp packets. One child also mentioned that they had been upset to see a homeless person on their latest visit into Cardiff. Following up on these concerns, they researched homelessness in class and found a link to a company</p>	<p>After the collection period finished and the packets were washed and counted, the school had saved 1450 crisp packets from littering the streets and being sent to landfill, where they'd stay for 80 years! This also meant that they could now be sent off and make 11 blankets for the homeless community. The children were really proud of this.</p>	<p><a href="#">Crisp Packet Project Groups - Crisp Packet Project CIC</a></p>

<p>who make blankets for the homeless community from used crisp packets! The two issues collided, and an idea was born! The pupils explained the action to the rest of the school in an assembly and they began to collect.</p>		
<p><b>Reusable Party Pack Hire</b></p> <p>Pupils from YGGG Llantrisant investigated sources of single use plastic and realised that children's parties were generating a huge amount of unnecessary waste. They decided to invest in a set of reusable partyware that people can hire for parties for a very small fee. This helps cut down on waste at children's parties and spreads awareness into the wider school community.</p>	<p>Less waste is being generated as the party pack is being hired out a lot. This has also raised awareness of single use waste</p>	<p><a href="#">BBC Bitesize – Managing Resources</a></p>
<p><b>Creating a Circular School</b></p> <p>After attending a 'Circular Economy' live lesson run by Eco-Schools staff, pupils at Llandeilo set out to investigate how circular their school was. They looked at the 'life cycles' of some of the waste they produced in school to discover if it had a circular or linear life. Based on this they have setup a number of initiatives including a uniform swap shop and an eco-lunch week. This has inspired them to carry out research through class based learning to discover more ways to make the future more sustainable.</p>	<p>The learners felt that their actions were good but could be better if even more people got involved.</p> <p>They hand delivered postcards with information they had researched about circular economy to the local community and challenged their neighbourhood to investigate how circular their home and lifestyle was.</p>	<p><a href="#">'What is Circular Economy' video</a></p>

# School Grounds and Wellbeing



School Grounds are fantastic places for education, play and wildlife. Whether they are areas of hard surfacing or large expanses of greenspace they offer a safe place where young people can engage and learn about the world around them. Spending time outside has been shown to be hugely beneficial for wellbeing and helps to foster a greater understanding of nature and our natural world.

Through classroom discovery, linked to this topic, pupils may have discovered that we spend so much more time indoors and that school grounds can be the only interaction for some to the outdoor world.

It is important, therefore, to be able to take this learning and turn this into a positive action to feel empowered and develop school grounds giving opportunities to be more active, connect with nature and to socialise.

Action	Impact	Useful links
<b>Enhancing Playtime:</b> Maesglas Primary pupils discovered many KS2 pupils were bored at playtimes. They engaged pupils through a questionnaire and determined more active play equipment was required. In consultation with the Head they designed, costed oversaw the installation of the trim trail in the school grounds.	<p>A wooden trim trail was installed.</p> <p>A dip sample questionnaire was completed by pupils highlighting increased physical activity at playtimes.</p> <p>Lunchtime supervisors monitored behaviour issues which decreased after the introduction of more active play equipment.</p>	<p>Play Wales:  <a href="#">Play Wales   Chwarae Cymru</a></p>
<b>Nurturing animals:</b> The pupils of San Sior, through an entrepreneurial project, decided to farm and nurture chickens. They highlighted an area of the school grounds where this enterprise could be developed. The pupils are involved in	<p>20,000 eggs are produced annually and links have been made to the local supply chain. All curriculum areas link to the project including data on income/expenditure highlighting profit and recording the decibels of the cockerels to ascertain 'nuisance levels'. The project has</p>	<p>Ysgol San Sior:  <a href="#">Creative   San Sior</a></p> <p>Food Un-folded:</p>

every aspect of this project from the welfare of the animals to the marketing and selling of the eggs.	further developed into growing vegetables to create chutneys and an apiary.	<a href="#">Keeping Chickens in Schools   How it Works (foodunfolded.com)</a>
<b>Creating Quiet Areas:</b> The pupils of Brynteg Primary explored usage of the school grounds with particular reference to quiet areas for reflection. They concluded more were needed and created 'calm spots'. This was linked to developing wildlife habitats for birds – bird feeders, nest boxes and perching posts so pupils could connect to wildlife through quiet time.	<p>Questionnaires were developed to ascertain the success of the 'calm spots' showing many pupils valued the opportunity to have reflective time during playtime.</p> <p>A before and after bird survey was carried out highlighting an increase in species diversity. This has led to other wildlife habitats being created. Wildlife monitoring is now built into curriculum time.</p>	<p>Keep Wales Tidy – Eco-Schools Resources:  <a href="#">Wellbeing-A-special-space-LKS2.pdf</a>  <a href="#">(keepwalestidy.cymru)</a></p> <p>Learning Through Landscapes:  <a href="#">Outdoor Learning ideas   Outdoor Lesson ideas   Outdoor Learning Resources (ltl.org.uk)</a></p>
<b>Creating Art Installations:</b> Bigyn Primary used the book 'The Lost Words' to frame a project on school grounds biodiversity and create an outdoor art installation – a tree hung with clay tiles linked to plants and animals. Each class explored the grounds to find out who lived there. They took photos, drew pictures, wrote fact files, created poems and conducted surveys.	<p>Big books were produced for the whole school grounds including photos, poems, fact files, sketches, paintings linked to the biodiversity.</p> <p>These books led to more habitats being developed in the school grounds and the books are regularly added to, highlighting increased species diversity.</p>	<p>The Lost Words:  <a href="#">Lostwordsbook   The Lost Words</a></p> <p>Learning Through Landscapes:  <a href="#">Outdoor Learning ideas   Outdoor Lesson ideas   Outdoor Learning Resources (ltl.org.uk)</a></p>
<b>Play - Reclaimed Materials:</b> Pupils from Christchurch Primary were challenged to create play walls using pipes, pans, guttering, tubes, pallets, funnels, hoses and much more. They designed and built a sound wall and water wall to add to play provision in the school yard.	<p>Spot check counts were introduced to see how many pupils played with the sound and water wall which highlighted regular use.</p>	<p>Learning Through Landscapes:  <a href="#">School Grounds Design Guide - LtL - School Grounds</a></p> <p>Play Wales:</p>

		<a href="#">Play Wales   Chwarae Cymru</a>
<p><b>Back 2 Nature project</b></p> <p>The whole of Llantwit Major Comprehensive School and the wider community came together to expand the school garden to provide an alternative learning environment for pupils. The idea was to create an outdoor learning space to engage with nature and learn where their food comes from and how it is grown. Additionally, they wanted to create a space to allow pupils to improve their mental health and provide exciting opportunities that link with the 4 purposes of the New Curriculum for Wales and the School Development Plan.</p>	<p>Over 300 pupils have worked on the project and enjoyed spending time outside, developing their understanding of food growing.</p> <p>Overall, they have planted 250 trees, built 8 raised beds, a poly tunnel, a traditional cob oven, and pergola, installed a rainwater harvesting tank as well as planting a range of fruit and vegetables including potatoes, tomatoes, butternut squash, mangetout, broad beans, carrots and onions!</p> <p>Inspired by this, pupils then went on to join Plant Llantwit, a local environmental conservation group, and to plant 420 trees near by the school.</p>	<p><a href="#">Llantwit Major School, Vale of Glamorgan - Keep Wales Tidy - Eco-join Schools</a></p>

# Food



Food is a central part of our lives, and it can have a hugely positive or a hugely negative impact on our planet and environment. Our choices linked to food have huge potential to impact on others both locally and globally. When learning about food in class, pupils may have learnt about the impact food can have on forests, society, and climate. They may have looked at how farming has changed over time as well as innovations for the future.

Our decision-making impacts the quality of our lives and others and work in this area helps pupils to make more informed and ethical decisions based on their values. Below are some examples of how learning about food has led to positive class-based action.

Action	Impact	Useful links
<p><b>Support Healthy Eating in the Community – Grow Your Own</b></p> <p>After learning about the cost of living challenge and the amount of people who depend on food banks, pupils at <b>Swiss Valley primary</b> decided to collect donations for the local foodbank. Following the success of this they decided to embark on a project to grow potatoes and donate them to the local food bank so that people were receiving fresh food as part of their food parcels.</p>	<p>13 raised beds were constructed in school so that all pupils could get involved in the growing.</p> <p>In one season, the school grew and supplied over 250 kg of potatoes to people in Llanelli through the local foodbank, reaching over 100 families.</p>	<p><a href="#">Growing-Together-Toolkit-ENG.pdf (keepwalestidy.cymru)</a></p> <p><a href="#">School Gardening / RHS Gardening</a></p>
<p><b>Food Growing:</b></p> <p><b>Llandeilo Primary</b> embarked on a topic entitled ‘Grow and Bloom Together’ as pupils wanted to understand where food comes from and engage in ‘real life’ skills. They grew food from seed, learnt to cook from scratch and sold food boxes to the community. They even</p>	<p>The project started with the aim to connect pupils to where food comes from.</p> <p>It quickly evolved into whole year production and links were made to the school food bank helping the local community.</p>	<p>Royal Horticultural Society: <a href="#">home / RHS Campaign for School Gardening</a></p> <p>WWF: <a href="#">Food growing resources and activities   WWF</a></p>

created a pizza with school made tomato sauce packaged in a recycled box!	The numbers of food boxes created and visits to the food bank have been recorded by the pupils showing an increase in community support and affordable food being supplied to local residents.	
<b>Fairtrade fruit tuck</b> After a whole school focus on learning about Fairtrade and the impact that our choices have on people globally, pupils in <b>Cwmaber Juniors</b> decided to investigate how much of their fruit tuck shop was Fairtrade.	After finding that there was room for improvement, the class wrote to the head teacher to petition for a change to Fairtrade fruit (e.g. bananas) where feasible. This has now been actioned and the pupils are able to enjoy Fairtrade fruit daily. The class are now looking to increase Fairtrade in the staffroom.	<a href="#">Available in Welsh - Fairtrade Schools</a>
<b>Sustainable Fish</b> Pupils in a Torfaen school explored the topic of fishing and its impact on the planet. They questioned the term 'sustainable fishing' and became 'fishy detectives' exploring the school kitchens with the catering staff's help to see if the fish products they served were MSC certified.	The pupils found that none of the fish products were MSC certified, so they wrote a persuasive letter to the authority catering services to facilitate a change.	<a href="#">Sustainable Fishing   MSC   Marine Stewardship Council</a>

# Transport



We all travel to school. With an emphasis on Health and Well-Being we can make a huge difference to our environment if we consider the benefits of active travel - walking, cycling, or scooting.

Through classroom discovery, linked to transport, pupils may have discovered the impact we have, both positive and negative on the local community and understand that how we travel impacts the planet on a local on global scale.

It is important to be able to take the learning and turn this into a positive action to feel empowered and know that we can make a positive difference to our world.

Action	Impact	Useful links
<b>Air Pollution Project:</b> Sketty Primary ran a project to discourage idling cars. Through classwork they surveyed the number of idling cars, and looked at the negative impact of these by using an air pollution monitor as well as looking at types of lichen on the school grounds which are susceptible to pollution.	A banner/awareness raising campaign was created, encouraging active travel and turning off car engines. The banner was placed on the school fence for all to see and further survey results showed the number of idling cars reduced.	Royal Geographical Society: <a href="https://www.rgs.org/schools/">Royal Geographical Society - Resources for schools (rgs.org)</a>
<b>WOW – Walk To School Challenge:</b> Durand Primary, through an enquiry-based approach on Climate Change noticed a large proportion of pupils arrived at school by car even though they lived nearby. They set up a walking bus, held specific walk to school days and discussed the physical benefits of active travel. Each class worked together to see which class could reduce their footprint by the most.	The WOW tracker was used to monitor active travel across the school. A monthly trophy was used to celebrate the class with the most pupils engaged in active travel which gave many opportunities for data collection and analysis of data.  The increase in active travel has been significant and the congestion levels have also reduced.	Living Streets: <a href="https://www.livingstreets.org.uk/walk-to-school-challenge/">WOW - the walk to school challenge   Living Streets</a>

<p><b>Sustrans – Big Shift, Travel Smarter:</b>  Monnow Primary were exploring Healthy Living and decided to take part in the Big Shift to encourage walking to school for Health and Wellbeing benefits. Every Thursday for 5 weeks Dosbarth Onyx were encouraged to walk to school. They shared their journey with the whole school through regular assembly inputs focusing on the enjoyment of the trip to school as well as their emphasising the environmental benefits of swapping short car journeys for more eco-friendly options.</p>	<p>By week 5, 72% of pupils were travelling to school in an active way from a base line of 65%. They calculated that the extra journeying had burned 6766 calories, the equivalent of 27 doughnuts!</p>	<p>Sustrans:  <a href="#">Sustrans Big Shift</a></p>
<p><b>Bling Your Bike and The Monster Stomp! – Themed active travel days:</b>  After learning about the carbon footprint of driving vehicles, pupils at <b>Gowerton Primary school</b> used their expressive arts sessions to increase active travel by holding regular ‘Bling Your Bike’ events where pupil bikes and scooters would be decorated. Prizes were awarded for the most creative.</p> <p><b>Betws Primary</b> investigated mental wellbeing and found out how beneficial time spent outside is for our health. They decided to hold regular ‘Monster Stomp’ days where pupils would dress up as monsters or superheroes on their walk to school to encourage fun active travel.</p>	<p>Both initiatives saw a significant increase in active travel, 25% in the case of the Monster Stomp.</p>	<p>Sustrans:  <a href="#">Bike to School Week Resources</a>  <a href="#">IBIKE.PDF (sustrans.org.uk)</a></p>
<p><b>Ynni Da Disco - Cycling for Energy</b>  Cenarth, Trewen and Beulau Primary Schools were exploring the health benefits of cycling. Thinking creatively, they enlisted the support of the Ynni Da Disco. To power the sound system, you have to pedal bikes, highlighting alternative energy, sustainable travel and promoting exercise.</p>	<p>Data is generated on energy created by pedal power, the distance travelled, calories burned and pulse rate before exercise and after.</p> <p>This data creates opportunities to look the energy produced and compare this to the impact of daily</p>	<p>Ynni Da:  <a href="#">Workshops - Ynni Da</a></p>

	activities such as boiling a kettle, helping learners to develop their understanding of energy usage.	
<b>Staff Car Sharing</b> During their topic work covering travel and transport, <b>YGG Y Cymer</b> discovered that the school car park was constantly full. They set a challenge to reduce the number of solo journeys amongst the staff. A questionnaire established base line data and the pupils approached SMT to get permission to set up a dedicated car sharing day once a week. They produced a fact sheet highlighting the environmental and financial benefits and shared it with teachers.	By the end of the academic year the pupils had recorded a 50% reduction in the number of cars using the school car park.	Sustrans: <a href="https://www.sustrans.org.uk/car-clubs-and-car-sharing">Car clubs and car-sharing - Sustrans.org.uk</a>

# Water



Approximately 71% of the Earth is water, however, less than 3% of it is freshwater. All living things need water to survive in their ecosystems including humans. We use water in our daily lives for drinking, cooking, cleaning and on a larger scale for agriculture, power, manufacturing including clothes and sanitation. Water is precious with many people living in areas which experience drought across the globe and in the UK.

Below are a few examples that we have seen showing how class-based learning can lead to class-based action that shows a measured positive outcome. Measuring the difference that you make is a really important part of the process as it demonstrates the impact made and also shows where there is room to make further improvements. It is also a great way to use data handling and numeracy techniques!

Action	Impact	Useful links
<b>Linking learning in the home</b> After learning about the water cycle, pupils in Glan Usk primary set a week of water saving tasks as home learning. The theme was I wonder why and how to save water? It involved the whole school finding out how and why water is important to us. Years 3, 4 and 5 looked at how much they used in school and at home and explored ways to conserve water.	Pupils were able to measure and monitor their home water use. A lot of the children were shocked by the amount of water that they used at home, which led them to make changes to their daily habits.  Shae aged 8 said “We use 264.54 gallons per day. My mum is timing me in the shower now so we can use less water. Even a minute faster will help us to conserve water.”	<a href="#">Teaching resources   Dŵr Cymru</a> <a href="http://dwrcymru.com">Welsh Water (dwrcymru.com)</a>
<b>Only Water</b> Pupils in schools across Torfaen were shocked to find out how many of our storm drains empty directly into rivers. They decided that it was important to raise awareness of this in the local community and to explain that we should be only	Drains across Torfaen were decorated with (non-permanent) chalk spray, which promoted discussions with families and other community members as to what happens to things that go down the drain. Greater understanding of where the drains lead to resulted in changes in behaviour.	<a href="#">Be the Wave - Keep Wales Tidy</a>  <a href="#">Ocean-Friendly Schools Award  </a> <a href="http://mcsuk.org">Marine Conservation Society (mcsuk.org)</a>

<p>putting water down the drains, not other liquids of litter.</p> <p>They designed a template that was cut out of vinyl and used to chalk spray drains in the local area with the message 'Only Water' or 'Dim ond Dwr'</p>		
<p><b>Inviting experts and taking part in workshops</b></p> <p><b>Morriston Primary School</b> invited Welsh water to conduct a whole school assembly and follow-on workshops with Key Stage 2.</p> <p>They explored different ways to save water before investigating water usage in their school.</p>	<p>Armed with their new knowledge, pupils noticed that the flushing system in the school toilets was outdated, they had the old water flushes replaced to save water and make the school more environmentally friendly.</p> <p>Children now have a broader understanding of sensible water usage, and the wider global concerns about Ocean pollution and it's causes and effects.</p>	<p><a href="#">Educational visits   Dŵr Cymru Welsh Water (dwrcymru.com)</a></p>
<p><b>Save our Oceans</b></p> <p>Crickhowell High school embraced a whole school theme entitled Save our Oceans. As a part of the learning students created work such as articles, maps and posters on the issue of plastic pollution and these were shown in an exhibition to the local community.</p> <p>A trip to a beach to conduct a litter pick was also arranged.</p> <p>Students also realised that there was limited access to refillable water sources within the school, which was leading to more single use plastic bottles being used.</p>	<p>The beach litter pick resulted in 3 bags of rubbish being collected and removed.</p> <p>A non-uniform day raised enough money to install 3 water fountains across the school, which are now regularly used, keeping students hydrated and reducing the amount of single use water bottles used.</p>	<p><a href="#">Fun and learning   What you can do   Marine Conservation Society (mcsuk.org)</a></p> <p><a href="#">Crickhowell High School, Powys - Keep Wales Tidy - Eco-Schools</a></p>

# Litter



Through learning about litter in class, pupils may have learnt about the effects littering has on our environment and wildlife and how it is contributing to climate change.

It is important to be able to take the learning and turn this into a positive action in order to feel empowered and know that we can make a positive difference to our world.

Below are a few examples that we have seen showing how class-based learning can lead to class-based actions showing a measured positive outcome. Measuring the difference that you make is an important part of the process as it enables you to celebrate the impact made and also shows where there is room to make further improvements. It is also a great way to use data handling and numeracy techniques too!

Action	Impact	Useful links
<b>Tackling dog poo:</b> When pupils in Parc Primary in Treorchy undertook a walk and investigation into their local community, they discovered that they had dog poo issues outside of school. The pupils used their Science and Technology lessons to upcycle 2L plastic bottles into dog poo bag dispensers which were then placed out in the community.	There were many people making use of the bag dispensers and picking up after their dogs. The pupils were also interviewed on the local radio! A later survey found that there were fewer incidents of dog fouling around the school area.	<a href="#">Keep Wales Tidy - Caru Cymru</a>
<b>Protest Power</b> After learning about the negative impacts litter can have on wildlife, Cwmaber Infants wanted to raise awareness of the issues with litter. They surveyed the rest of the school and discovered 100% of pupils felt the same. Based on this, pupils decided to stage a protest in their local community.	Many residents in the community came out to see the protest and in agreement have since helped to spread the word.  A noticeable reduction has been seen in the amount of litter being dropped in their local park.	<a href="#">Fridays for Future – How to Strike</a>  <a href="#">Litter Toolkit - Flip PDF   FlipBuilder</a>
<b>Whole school litter action!</b>		<a href="#">Eco-Schools – Litter resources</a>

<p>The eco-committee at Our Lady of the Angels Primary in <b>Cwmbran</b> wanted to get all year groups involved in their litter action. The Foundation Phase devised some tips and tricks on how best look after the environment which they shared with parents. Year 3 created posters to raise awareness. Year 4 wrote letters to Mother Nature asking what they could do to help. Year 5 surveyed the bins around school, was there enough and were they being used correctly. And finally, Year 6 created a presentation which was shared in a whole school assembly which parents were also invited to. The eco-committee then monitored the school's progress through regular litter picks.</p>	<p>At the start the litter picks, they collected 2 bags of litter per week. This reduced to 1 bag a week. They worked out that one full bag equals 74 cm and as they had collected 21 bags of rubbish so far, that reached a height of 15.54 metres. That is a quarter of the height of Cwmbran Tower Block! Members of the public commented how much better the environment within the school is looking.</p>	
<p><b>Trashion Show</b> Following research on plastic waste, year 5 learners in Castle park primary wrote letters to local businesses, challenging them to reduce the number of products they sold in plastic packaging. They wanted to further awareness of the ongoing litter issues so held a fashion show of the clothes made out of rubbish, mainly single use plastic.</p>	<p>Plastic waste bins have been installed in the school following pupils voice feedback.  Really positive feedback from those who attended and it was felt that there was a positive impact on the amount of litter around following the show.</p>	<p><a href="#">Upcycle That – idea for trash fashion</a>  <a href="#">Castle Park Primary - Keep Wales Tidy - Eco-Schools</a></p>
<p><b>Litter in Landfill</b> Garnteg Primary reception class created their own landfill site to observe what happened to different types of litter over time. They used a wooden box with a plastic front so they could look at what was happening.  They noticed that nothing happened to most of the litter (apart from the food waste) and then developed a clear understanding of how this is what is happening with most of the litter in the world. This made them very determined to stop litter in their school and community.</p>	<p>Regular litter picks were set up involving pupils throughout the school and more bins were added to hot-spot areas in the grounds. Pupils carried out survey of the litter on the school grounds and found a reduction in the amount that they were finding.</p>	<p><a href="#">Landfill Facts</a></p>



Eco-Sgolion



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