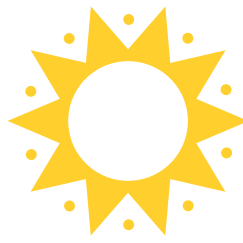


Climate Action **Schools'** **Advice Pack**



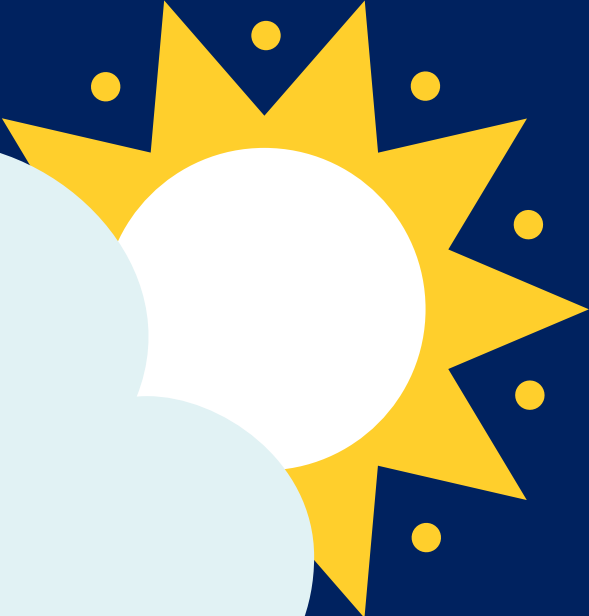
LET'S GO GREEN!



Essex Climate Action Commission
Powering positive change



Essex County Council



Climate change is a vital issue. By working together across our communities in Essex, we can create real positive change.

This advice pack is a collection of key guidance, tips and information to help your school cut your carbon, to reduce your impact on the environment and to help us improve long-term sustainability across Essex. Reducing your school's impact on the climate and environment is not as challenging as it may seem. There are many practical and cost-effective (often free!) changes you can make to help reduce your carbon emissions and to ensure your school is operating sustainably.

The [Essex Climate Action Commission](#) has advised the county of Essex on the key steps to get to net-zero emissions by 2050 and build resilience to climate risks. In its report: [Net Zero, Making Essex Carbon Neutral](#), one of its recommendations is to signpost Essex schools to good advice and help in the transition to a lower carbon lifestyle.

We all have a role to play in reaching net zero. Small changes undertaken together can have a lasting impact and often lead to new ways of thinking about how we live and work. Reaching net zero will require change and proactive action from all of us and will be achieved through both big and small changes.

Alongside this resource for schools on climate change, Essex County Council has developed a guidance pack for residents and another one for businesses. If you would like to read these documents, please visit the Essex Climate Action Commission [website](#).

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1. Framework for Action

There are some important strategic steps your school can take to develop a framework for action to tackle climate change.

School-wide Initiatives - Framework for Action



- Could you develop a defined **climate strategy**, which sets out ambitions and commitments you would like to achieve? This could include targets ranging from becoming a net zero school by a certain date to eliminating the use of single use plastics in classrooms and the canteen. Such a strategy will help to crystallise your aims and commitments.
 - » Could your school pledge to incorporate its climate strategy into the school's overarching strategy? This would highlight your school's commitment to tackling climate change and increase accountability.
 - » Friends of the Earth has developed a [**Climate Action Plan for Schools**](#) resource.



A climate committee can work to develop initiatives, such as introducing incentives (eg badges, rewards, etc.) for students to take action



You may wish to **establish a climate committee or develop an existing climate group at school**. This provides students with an opportunity to voice concerns and share ideas about what your school can be doing to tackle climate change. It can work to develop initiatives, such as introducing **incentives** (eg badges, rewards, etc.) for students to take action or introducing **green school assemblies** with commendations for environment related achievements. You may also wish to involve teaching and other school staff, such as senior leaders, catering and site managers, to help young people express their concerns directly to those who can take action. In addition, you may wish to expand this committee to include members of the wider community (please see page 31).

- **Climate Anxiety** – For some young people, climate change and damage to the environment is not only of concern to them, but is extremely worrying. Many children now have access to unfiltered information online and may be alarmed at some of the detail they find. It is important to recognise that when speaking about climate change, you are **providing information which empowers young people to understand the facts and demonstrates that they can be part of the solution.** Ultimately, it is important to remain conscious that this level of worry will vary from child to child and that a tailored approach may be necessary. By forming a climate committee, holding green-themed assemblies and perhaps special Q&A climate sessions, you can provide a way for young people to **discuss their concerns openly with their peers, with guidance from teaching staff.**
 - » You may wish to consider the work of [Healthy Schools Essex](#), which places an emphasis on improving the health and wellbeing of young people. The programme provides a strategic framework for schools to reflect on their provision and includes topics such as PSHE, Mental Health and Emotional Wellbeing and Pupil Voice. Climate change and the environment can be incorporated into a Healthy Schools project with a focus on emotional wellbeing. For any activity undertaken, schools can nominate themselves for a Healthy Schools Best Practice Award at an annual celebration event.
- A significant part of a school’s carbon footprint – and spending – will come from its **energy bills.** Can you work with site managers to understand your school’s energy usage and implement behavioural changes to tackle energy bills and carbon emissions? You can find out more about energy management on page 17.



- Include **climate action throughout the curriculum.** For example, learning about the impacts of carbon emissions in science, through to persuasive writing exercises in English to influence politicians. You can find out more about teaching and learning resources on pages 10 and 34.

- Consider **how sustainable the journey to and from school is** (both for students and staff) – could walk to school weeks help to build momentum? You can read more about this in the ‘On the Way to School’ section on page 6.
- Instil environmental values into the staff code of conduct (eg printing double-sided and only when necessary).
- You can also find out more about the [Department for Education’s Top tips for sustainability in schools.](#)



CASE STUDY



Hogarth Primary School in Brentwood has instilled the Eco School ethos in every year group, with dedicated '**Eco Warriors**', who are responsible for sharing information between their peers and the Eco Committee.

Work with External Organisations

Your school could consider working with external organisations to support your journey to becoming more sustainable, including:

- **Eco Schools** - which inspires and empowers pupils; raises environmental awareness; improves the school environment; creates financial savings.
- **Let's Go Zero 2030** unites schools working to become carbon zero by 2030. Led by **Ashden** (ashden.org/schools-campaign) and a group of organisations. Ashden helps schools to Connect, Share and Act to combat climate change. One of its focuses is developing policy to seek change with government in order to reach its goal of net zero by 2030 and to educate young people.



2. On the Way to School

Think about transport links in your area, and how pupils and their families can choose the most **sustainable methods to travel** in their day-to-day life and when travelling to school.

Examples could include **walking, cycling, scooting, skateboarding, jogging and carpooling**. The benefits beyond reduced carbon emissions can include increased exercise and reduced traffic around schools resulting in less pollution.

According to **DEFRA**, the average petrol car CO₂ emissions amount to 280.5g per mile, or a kilogram of CO₂ per 3.5 miles. Compare this to buses (164.6g per passenger per mile, or a kilo of CO₂ per 6.1 miles) or trains (57.1g per passenger per mile, or a kilo of CO₂ per 17.5 miles) and the difference is stark.



Given how rural parts of Essex are, car journeys are sometimes necessary, but it is worth considering how introducing **public transport** or **car sharing** into your travel routine once or twice a week can make a real difference. Could you discuss with friends and neighbours who have children at the same school to **car share on the journey to or from school?** You can find out more about car sharing on the [Essex Highways website](#), including details about the [Essex Car Share scheme](#). This has been developed by Essex County Council and Liftshare as a free service which helps to match people who wish to car share for journeys around Essex. If you are driving, you can help to reduce your emissions by limiting 'idling' – keeping your engine running while your car is stationary.

All schools in Essex have free access to **STARS**, which provides a Travel Plan Toolkit for schools. Woodville Primary School has been recognised with Platinum accreditation for its travel plan (and was also named STARS' East of England Primary School of the Region 2021/22). Essex County Council can also provide free support and advice for developing bespoke travel plans for schools. If you have any queries, please contact [Nick Hill, Sustainable Travel Planning Officer](#).



There are a number of sustainable travel initiatives your school may wish to explore:



1. Walk more

- Introduce walk to school to schemes (ensure parents are consulted).
Examples include:
 - » [Walk to School Week](#)
 - » [Walking the school run | TheSchoolRun](#)
 - » [WOW - the walk to school challenge | Living Streets](#) – A year-round active travel challenge, where pupils earn badges for walking, scooting or cycling.
- Or you could set up your own scheme incentivising students by offering rewards and keeping a class-wide tally.
- Organise a ‘walking bus’, where students meet at a set location before walking together to school (with adult supervisors – the ‘driver’ and ‘conductor’ at either end). A free guide about setting up walking buses is available. Please contact [Nick Hill](#).
- Help students to create a cut-out ‘bus’, to carry on their walk to school
- A number of schools already have walk to school weeks (or similar initiatives), including [Perryfields Junior School](#) in Chelmsford.
- Consider how to keep active through broader, walking, jogging and running initiatives, such as [The Daily Mile](#).



2. Cycle more

- Introduce cycle to school schemes (ensure parents are included). Examples include:
 - » **Sustrans The Big Walk and Wheel**
- Combine with **Bikeability cycle training**, with levels for infants, juniors and secondary students for those who need to learn or would like a refresher. Adult cycle training for staff is also available.
- For teachers and school staff: The **Cycle to Work** scheme allows staff to save money and spread the cost of buying a bike. Speak to your school to see if it is already part of a Cycle to Work scheme.
- **Safer Essex Roads Partnership** – encourages cycling for work, school or pleasure. Bikeability offers courses for those who want to cycle, ranging from ‘Learn to Ride’ to advanced level. Every school in Essex has the opportunity to have cycle training (across all ages and adult lessons for staff).
- Scooter training resources are also available. **Contact Nicholas Hill.**



3. Get the kids involved

- The '**Youth Travel Ambassador**' programme provides young people aged 11 to 19 with the skills and confidence to address transport issues affecting their school community.
- Are students using public transport? It is worth considering local bus and train provisions for getting to and from school. For instance, **Greater Anglia** offers discounted travel for some students.



4. Park-and-Stride

- If you have to drive in, could you park elsewhere?
- "Park-and-stride", where families park their cars at an agreed location away from the school and walk the remaining distance.
- Can you come to **agreements on school traffic with local businesses?** Woodville Primary School has arranged for parents to park in a large supermarket's car park for school pick-up and drop-off, reducing traffic, pollution and the risk of accidents.



5. Rethinking School Trips

- When you are taking school trips, do you have to drive? Can you walk?
- If you have your own fleet of minibuses or other onsite vehicles, if and when these need to be replaced, consider **electric vehicles**.



6. Other Resources

- Active Essex has produced an **Active Travel Toolkit for Schools**. Essex County Council will be developing a 'school streets toolkit' to explore what schools can do to promote active travel, improve air quality and reduce congestion outside schools. This will be available in 2022.
- The **Essex Car Share scheme** helps to match people across Essex who wish to make journeys by car sharing.



3. In School and the Classroom

There are many small changes which can be made in school and the classroom. Over time, these will make a big difference to the overall impact we have on the climate.

One exciting funding scheme is the **Essex Climate Action Fund**. Essex County Council has made available £500,000 for voluntary and community projects to tackle climate change. Schools are encouraged to apply. **Grants of up to £20,000** will be made available to eligible projects, in support of the Essex Climate Action Commission's recommendation of making Essex net zero by 2050. You can find out more about the scheme [here](#).

Teaching and Learning Resources

The national curriculum provides the framework for education across all schools in Essex. It is worth noting the [Government's ambition](#) to deliver a 'world-leading climate change education through a model science curriculum' by 2023 (including the introduction of a natural history GCSE by 2025), meaning that climate change and environment related teaching resources will become increasingly relevant. This ambition is part of the Government's Sustainability and Climate Change Strategy for the education and children's services systems, which you can read in full [here](#).

There is a wealth of **resources available to support teaching** in relation to climate change across a number of subjects including geography, mathematics and science. You may also choose to **use resources during form time discussions or extra-curricular clubs**. Educational and environmental charities are increasingly aware of the importance of being able to link teacher resources to the national curriculum and are doing so across all key stages.

CASE STUDY



The Wilderness Foundation is a charity which has its primary site in Britain based in Essex. The organisation offers nature-based outreach programmes and nature therapy camps, along with wilderness trails which enable adults and young people to explore unspoilt wild places.

It also runs a Green Influencers Scheme, which helps young people aged 10-14 to realise their potential to positively impact the environment and communities through youth social action. The Wilderness Foundation's CEO, Jo Roberts, is a member of the Essex Climate Action Commission.

Resources are diverse and cover topics such as plastics, healthy seas, the natural world, food production, energy conservation, waste management and carbon emissions. A list of teaching and learning resources is included on page 34 of this pack. Below are a select few examples of resources and initiatives you may wish to use in your school:

- **Common Seas** aims to quickly and significantly **reduce the amount of plastic produced and to stop it polluting our rivers and seas**. It has created **Ocean Plastics Academy** to empower the next generation to join this endeavour. It provides a number of **curriculum aligned resources and practical activities**. It also works with the organisation **Kids Against Plastic** on **Plastic Clever Schools**, with the aim of helping schools to work sustainably with plastic, with resources provided on an **online platform**.
- **Essex Learning Outside the Classroom Providers** brings together groups and individuals from across Essex to offer programmes of environmental education and Education for Sustainable Development. These programmes benefit schools, other groups of young people and the wider public. The website includes **a list of providers that offer school visits in Essex**.
- **Essex Outdoors** (ECC) provides outdoor learning at its four centres across the county – with the aim of delivering an inspiring educational experience beyond the classroom. With offerings available to both primary and secondary schools, including forest schools, day trips and residential trips, Essex Outdoors emphasises the importance of learning through outdoor activity.



CASE STUDY

Trips to visit green spaces or renewable energy sites can provide hands-on learning, as well as being linked to the national curriculum. Woodville Primary School in South Woodham Ferrers achieved this with its visit to a water recycling centre.



Use of Materials and Waste

Waste prevention, reuse and recycling can help tackle climate change by making better use of **natural resources**, saving **energy** and ultimately **reducing greenhouse gas emissions**.

There are a number of ways your school can reduce its waste:

- Firstly, consider waste prevention and the steps which can be taken to **stop waste being produced in the first place**.
- Provide **different types of bins for different waste** in the classroom and educate students about which rubbish goes where. You could also think about **composting, promoting litterless lunches, eliminating bottled water or becoming paper free**.
- Lots of schools now have branded water bottles with their school logo on – this will encourage sustainable use of materials.
 - » Information and resources about plastic and sustainability are available on the [Essex Plastic Pledge](#) website.
- Speak to your local council or waste collection contractor to see what services they can provide to recycle or compost waste.
- Litter picking – both within schools and in the community (please see page 31 for more information).



- Speak to your suppliers to see if packaging for items being delivered regularly could be reduced.
- Help your school subscribe to the [circular economy](#), which emphasises reuse to minimise waste. Essex County Council is the lead partner in [Project Blueprint](#), which offers [free resources](#) on the circular economy.
- [Reschool](#) allows you to upcycle unused classroom equipment and to reduce waste. It serves as a platform for the advertisement of disused classroom equipment for recycling, rental and donation.
- Become a [Terracycle](#) collection point for recycling.
- Set up a battery collection box at your school with [BatteryBack](#).
- Sign up to [Return A Toner](#) to recycle your empty printer cartridges.
- Find recycling ideas and posters by visiting [Recycle now Schools](#).
- Visit the [Keep Britain Tidy](#) website for ideas and activities to reduce waste.
- [Love Essex](#) provides detailed information about composting.
- For school uniforms (if applicable), avoid uniforms imported from far afield. You might also wish to consider ways you can **reuse and recycle school uniforms**. Could a second-hand uniform shop work at your school? This could be run by volunteers at home time, with proceeds being reinvested – perhaps into climate change initiatives.
- Host a clothing event to swap or sell preloved clothing and potentially raise money for your school. Arrange a clothing collection with [LMB](#), [Bag2School](#) or [Essex Textiles](#).

CASE STUDY



At Colchester County High School for Girls, a second-hand school uniform shop has helped to provide good quality and affordable clothing for pupils. Between July 2020 and September 2021, over £14,000 worth of uniform was sold. The money helps to fund additional equipment and resources for departments across the school.



Food Waste

Food waste is a problem across many parts of our society.

Schools can play an important role in reducing food waste, as well as potentially being recipients of food donations before it ends up going to waste.

Five of the UK's biggest supermarkets (Tesco, Sainsbury's, Waitrose, Co-op and M&S) pledged in November 2021 to halve the environmental impact of a weekly food shop by 2030. They will aim to achieve this by reducing carbon emissions, deforestation, packaging and food waste. These efforts will be monitored by the World Wildlife Fund. The food industry emits about 17.3 billion tonnes of carbon dioxide each year.¹

Your school may wish to consider:

- **Building a relationship with your local supermarkets** to access food which would otherwise go to waste. Many supermarkets have community engagement teams which work to make sure food that cannot be sold before its expiration date is donated to good causes. For example, [**Sainsbury's has partnered with Neighbourly**](#) to donate surplus food to local organisations, including schools.
- Buying from and/or **working with local businesses and food suppliers**. This has the potential to reduce carbon emissions from long haulage journeys and refrigerated storage. It may also provide opportunities for children to learn about the journey of food from harvest and production to reaching their plate. Sustainability and nutrition are an important aspect of broader climate and wellbeing knowledge.
- Food waste should be segregated so that it can be **collected separately**. It is worth speaking to your waste contractor/collector about options available.



CASE STUDY



Danbury Park Community School students analysed food packaging waste and were able to speak to their cook to request that fruit salad was no longer served in individual disposable pots.

Food and Food Production Education

We know it is important to eat a balanced diet, but how sustainable is our food? One activity that could be undertaken in class is **research into the sustainability of some of our meals.**

Resources and activities you may wish to consider include:

- **[Annual Essex Schools Food & Farming Day](#)** – Organised by the Essex Agricultural Society for school children aged 8-11 to find out first-hand how their food is produced, the role of farmers and about jobs in the industry.
- **[Barleylands Schools](#)** – Offers school visits aligned to the national curriculum. Primarily focused on food, farming and Science, Technology, Engineering and Mathematics (STEM) delivery, with tailored visits to meet other subject needs, such as history and English, are also available. Its guided tour emphasises outdoor learning and interaction with animals.
- **[Food Miles Calculator](#)** – A tool which helps to calculate how far food has travelled before it reaches the consumer.
- **[School Food Matters](#)** – Offers advice, resources and fully funded food education programmes to schools.





According to the UN,
livestock constitutes
more than

14%

of all man-made
greenhouse gases globally
(including methane)

Climate-Friendly Meals

Thinking about the types of food we eat and where they come from is an important means to tackle climate change.

According to the UN, livestock constitutes more than 14% of all man-made greenhouse gases globally (including methane).² Simple steps, such as having meals which are lower in elements such as red meat, will reduce the climate impact of your diet. Choosing local, smaller-scale producers makes a big difference on how the land is treated and maintained. Their impact on the environment is far less than that of larger scale, international food supply chains. As well as supporting your health and your local economy, you might get to know local producers and get tips on how to prepare seasonal foods.

Some schools have introduced meat free days, although there are cases where this has proved controversial. You might consider **'climate friendly' days**. These could include vegetarian/plant-based options and meals sourced from local produce.

4. School Buildings: Energy Management and Retrofitting



Effective management of energy can play a vital role in reducing carbon emissions.

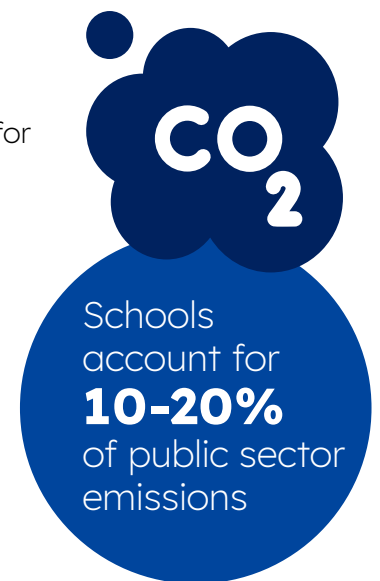
In addition, this can lead to other benefits such as cost-savings and future-proofing your premises through improved technology and/or infrastructure. You can read more about good estate management for schools on the [Department for Education website](#), as well as the [department's top tips for sustainability](#).

Conserving Energy and Electricity

Heating and electricity are key contributors to our carbon emissions. According to the [Let's Go Zero](#) campaign, schools account for 10-20% of public sector emissions.³ The vast majority of this will come from heating and electricity.

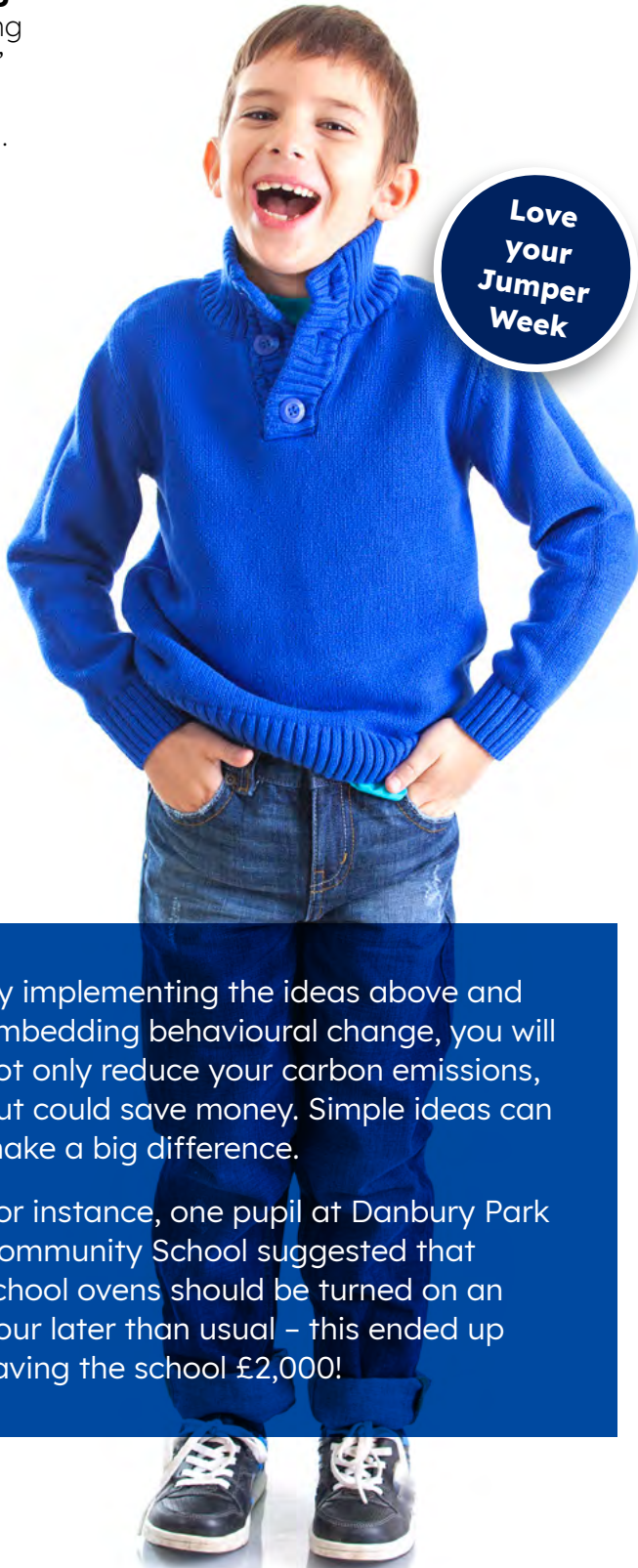
Some of the first simple steps that you can take in school to tackle energy wastage include:

- Ensuring all **computer monitors are switched off in schools when not in use**. When multiplied by the thousands of computers in use across all schools in Essex, it is easy to see how small changes can make big differences.
- Ensuring **lights and radiators are set to timers**, so they turn off automatically when not in use/outside of school hours.
- Ensuring **external lights on buildings are also set to timers**. Lights left on overnight can also have a detrimental effect of nocturnal wildlife.
- **Labelling lights and appliances** to show which should be left on or turned off.
- Appointing a **student 'energy champion'** volunteer, who is responsible for ensuring all monitors and lights are switched off when not in use (perhaps at lunchtime and at the end of the day). They could also monitor thermostats. This role could be rotated amongst the students.
- Signing your school up to the Pod's [Switch Off Fortnight](#). It can be student or teacher led – and aims to reduce carbon emissions. Upon signing up, schools will receive a free resource pack. The average energy saving reported by schools taking part in Switch Off Fortnight is 10%.



- **Speaking to site managers** to understand what systems are in place to ensure energy efficiency and where improvements can be made. This may be part of a wider conversation with the Senior Leadership Team (SLT) and could involve discussion with students about how your school could reduce energy use and associated emissions.
- Running a campaign to **make better use of natural light** on sunny days – daylight in a classroom can reduce lighting costs by 19%.⁴
- Carrying out a campaign to inform staff and pupils about the **importance of classroom layout to keep the heating running efficiently**. Furniture is constantly being rearranged to accommodate students’ needs, but it is important to make sure radiators and vents are not obstructed. This ensures better circulation of heat into the space and reduces the energy required to meet the heating demand.
- Running a **“Love your Jumper Week”**, where classroom temperatures are turned down, and everyone is asked to come to school wearing a jumper or fleece that they feel comfortable wearing indoors. Wearing a jumper can give an extra 3°C heat, and for every 1°C you reduce the classroom temperature, you save the school about 10% of its heating costs.⁵

Love
your
Jumper
Week



By implementing the ideas above and embedding behavioural change, you will not only reduce your carbon emissions, but could save money. Simple ideas can make a big difference.

For instance, one pupil at Danbury Park Community School suggested that school ovens should be turned on an hour later than usual – this ended up saving the school £2,000!

Your school may wish to consider joining or working with **larger energy projects**, including some of the below:

- **2Imprezs** could help to support your school's journey to emissions reduction. Essex County Council has recently joined this scheme, which has helped schools in Southend to save an average of 15% on their energy bills through 'Energy Challenges'.⁶ These challenges inspire young people to take control of their schools' energy bills and implement energy saving technical measures and behavioural changes. Essex County Council will support at least ten schools in Essex to participate in this programme. If your school is interested in participating in this pilot, please contact lowcarbon@essex.gov.uk.
- **Hopes Sustainability** works with schools and councils to install sensors to measure electricity and gas usage. Hopes Sustainability collates this data onto its platform for site managers and teachers to access, permitting practical assessment of energy use, as well as the use of data as a potential resource for teachers to use in class. Hopes Sustainability projects that one of its pilot schools (St Winifred's Catholic Primary School in Lewisham), will make £7,000 p/a net savings in relation to energy use. A Hopes Sustainability **pilot with schools is underway in Essex**. If your school is interested in joining the scheme, please contact participate@hopes-sustains.org. Funding may be available for schools considering participating via the [Essex Climate Action Fund](#).
- **Points4Planet** is a social enterprise organisation, which works with schools and local authorities to help reduce their carbon emissions. An innovative meter system allows schools to monitor their energy usage and to make effective decisions to reduce their carbon footprints. Points4Planet aims to engage with as many schools as it can and to encourage young people to be 'agents of change'.
- Community Energy – there has been a significant number of schools and community energy groups working together to commission renewable energy installations across the UK. Since 2021, five community energy groups have been established in Essex, including [Saffron Walden Community Energy](#) and [...](#). Community energy groups are keen to help schools on their sustainability journey. Please contact lowcarbon@essex.gov.uk for further information.
- Essex County Council has secured funding to **recruit a team to support schools to identify carbon reduction projects and set them on the road to net zero**. This could include undertaking **site specific surveys, looking at energy utilisation data and assisting in any grant funding bids**. The team will also look at how best to support behavioural change in schools, as well as analyse the energy profile of a school, in order to identify where changes can be made (such as when lights could be turned off). If you would like to register your interest for when the team is established, please email lowcarbon@essex.gov.uk

Renewable Energy Projects



Essex County Council has supported the installation of **roof mounted solar panels at 29 schools** across the county.

You may wish to think about how to **reduce your school's reliance on energy from fossil fuels**. It is worth considering the feasibility of installing solar panels or mini wind turbines.



CASE STUDY

In June 2021, St John's C of E Primary School in Danbury was fitted with solar panels as part of the Empower pilot and saw a 50% reduction in electricity used from the grid in the first month of their installation. Essex County Council supported the installation of roof mounted solar panels at 15 schools across the county in 2021. Together, these panels will generate 700,000 kWh of energy, equivalent to powering 180 homes a year, saving 175 tonnes of CO₂ and around £115,000 annually.⁷



CASE STUDY

In October half term 2020, Danbury Park Community School in Chelmsford installed solar panels which will save 15 tonnes of carbon in the first year and 375 tonnes over the panels' lifetime⁸, as well as approximately £5,000 annually on electricity bills.



You may wish to consider joining a **community energy group**, where residents, schools and businesses can work together to commission renewable energy installations. Please see page 19 for more information.

We know that securing funding can be an obstacle to these more ambitious plans to tackle climate change. As a starting point, it is worth considering how solar and wind could be incorporated into new build structures at school, or during the refurbishment of existing buildings. Support is sometimes available from Essex County Council, so please watch the ECC website and social media channels.

Retrofitting

Retrofitting refers to the addition of new components, technology or features to a building, in order to reduce carbon emissions and increase efficiency. This may include the introduction of improved insulation or the fitting of new windows.

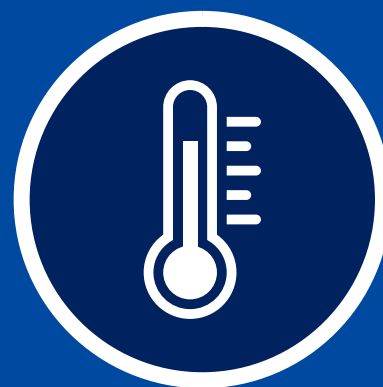
Essex County Council has supported a number of schools with retrofitting projects, including the installation of solar and new double-glazed windows. Double glazed windows can help to **improve insulation and reduce emissions** through **reduced energy use**. Of the dozen schools supported in 2021, it is projected that they have cumulatively made a **total annual cost saving of more than £80,000 (between £4,000 and £8,000 per school)**.

New builds and expansions of school buildings also offer opportunities to **embed new technology and good practice which lead to a reduction in emissions**.



Of the dozen schools supported in 2021, it is projected that they have cumulatively made a total **annual cost saving of more than £80,000** (between £4,000 and £8,000 per school).

CASE STUDY



Merrylands Primary, Earls Colne Primary and Beauchamps Secondary schools were supported by Essex County Council in adding new capacity to their schools. These new buildings were all awarded an EPC rating of A plus and will produce an average of minus 75kg CO₂/m²/year, compared to the industry benchmark of 66kg CO₂/m²/year: a net impact of -141kg CO₂/m²/year.

Aspects of this retrofitting included the installation of Mechanical Heat Ventilation and Heat Recovery systems, whereby heat is removed from the stale air before it is expelled and used to pre-warm fresh air as it is supplied – recycling over 90 per cent of the heat in the building during the colder seasons. Energy consumption is further reduced through the use of Light Emitting Diode (LED) lighting.



CASE STUDY

As part of his research to improve learning environments within schools, **Professor Stephen Heppell worked with Essex County Council and Fingringhoe Primary School** in Colchester. Professor Heppell's research showed that poor lighting can impact learning, attention span and behaviour among students. Fingringhoe introduced an LED lighting system that changed colour throughout the day to replicate changes in natural daylight, which not only improved the learning environment, but also reduced carbon emissions.

By using a Gratnells Learnometer – which records what is happening environmentally in a classroom – teachers and pupils gained access to a wealth of data. This included readings of light, temperature, carbon dioxide, noise, humidity, pollution and fine dust. You can find out more about Gratnells Learnometers **here**.



You can read the full report about the work undertaken at Fingringhoe Primary School here.

The benefits of retrofitting, using new technology and careful monitoring of energy use are not limited to just **environmental benefits**. They also encompass **learning, wellbeing and financial advantages** as well.

As part of ECC's commitment to net zero for schools by 2030, it is intended that 50% of all schools will be retrofitted by 2025, and 100% by 2030. All new schools will be net zero by 2022.

Essex County Council has secured funding to recruit a team to support schools to identify carbon reduction projects and set them on the road to net zero. This could include undertaking **site specific surveys, looking at energy utilisation data and assisting in any grant funding bids**. If you would like to register your interest for when the team is established, please email lowcarbon@essex.gov.uk



As part of ECC's commitment to net zero for schools by 2030, it is intended that **50% of all schools will be retrofitted by 2025, and 100% by 2030.**





5. Outdoor Space

Flood Risk and Water Management

Across Essex, 36,165 residential properties are in areas at risk of surface water flooding in a 1 in 100-year return period⁹. Predictions indicate that climate change will result in up to 40% more intense rainfall during storms¹⁰. Local flooding is set to become more of a reality for those at risk, as our existing drains and watercourses will not always be able to cope. It is important that your school knows its risk and some of the simple steps it can take to help mitigate this.

 **You can search by postcode to identify your flood risk with a tool (flood.essex.gov.uk) from Essex County Council.**

You can help to mitigate your flood risk through effective land use and green infrastructure solutions. Planting trees can reap many environmental rewards, not least reducing your flood risk through absorption of excess water. There are a number of schemes and resources available to support this, including the Essex Forest Initiative (please see page 28).

Some initiatives you may wish to consider include:

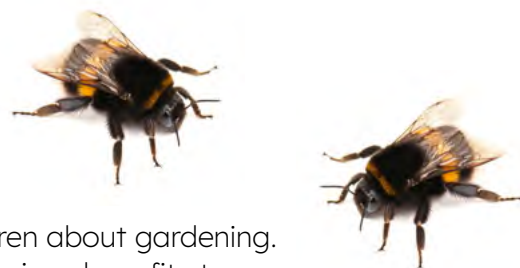
- **Developing rain gardens** – a rain garden is a sunken area in the landscape that collects surface water and allows it to soak into the ground. Planted with grasses and flowering perennials, rain gardens can be a cost effective and attractive way to reduce surface water flooding issues and control runoff from your property. They generally only hold water during and after a rainfall event and are largely dry otherwise.
- Water butts are a great way to manage water on school premises and can be used to store water for purposes such as watering school gardens. You may be eligible for a **subsidised water butt** and can find more information by entering your postcode and clicking on the ‘special offers’ tab [here](#).
- **Sustainable drainage systems (SuDS)** – are an important means of managing water. These may include using permeable building materials; ‘green roofs’, whereby roofs have plants and other foliage incorporated into them to absorb rainwater; or SuDS planters, which capture water from roofs and funnel them down into planters.
- **Understanding where water collects in your school** – it is worth working with site managers to understand where water pools after it rains, so you can identify where flood reduction measures would be of most value.

Has your school previously been flooded? Essex County Council would like to hear from you to explore possible support and funding opportunities. Please contact floods@essex.gov.uk.

Rain gardens can be a cost effective and attractive way to reduce surface water flooding issues and control runoff from your property.



School Gardens



Grow your own vegetables, plant trees and teach children about gardening. According to the Soil Association, gardening in school brings benefits to everyone, improving health and wellbeing, better levels of attention in class, higher achievement and stronger links with the local community.

There are lots of small and manageable steps you can take to develop school gardens, including:

- **Develop vegetable patches** – [Hogarth Primary School](#) has done this, with children taught how to sow, nurture, harvest and then replant seeds. You could contact local garden centres and supermarkets to see if they are willing to **donate seed packets**. Could your fruit and vegetables be used in **school meals**? This will also reduce the need to buy pre-packaged (often with plastic) salads.
- Is there an area on your school premises that could be repurposed to **sow seeds for rewilding**? Not only does this provide children with an opportunity to interact with nature, but can also improve biodiversity on your school site. This offers a wealth of potential opportunities for exploring eco systems – such as bird and butterfly counts – which can often be linked to the curriculum or eco clubs.
- As part of the BBC’s [The Regenerators](#) and [The Green Planet](#), you can learn **how to make seedballs** to attract birds and improve biodiversity in school grounds.
- The [British Beekeepers Association](#) offers support and advice on the steps necessary for schools to keep bees on site, as well as a number of education resources. [Heron Hill Primary School](#) in Kendal keeps colonies of honeybees on site. Bee clubs are open to students from Year 4 upwards, who study to take their **Junior Certificate in Beekeeping**. Younger children are also involved with bee-related activities during the year.

As part of the BBC’s Regenerators and The Green Planet, schools can **learn how to make seedballs to attract birds** and improve biodiversity in school grounds.



The Royal Horticultural Society hosts the **School Gardening Awards** and has a number of resources available:

- [Setting up a school garden](#)
- [Gardening club calendar](#)
- [Greening your school](#)
- [Encouraging wildlife into the school garden](#)
- Schools can also join the [Campaign for School Gardening](#) and receive a free welcome pack
- RHS also works with The Wildlife Trusts on the [Wild About Gardens Campaign](#)



Could you set up a compost bin at your school? [Love Essex](#) provides information about how to manage composting.



Trees play a vital role in capturing carbon from the atmosphere and storing it; providing 'green shielding' to prevent overheating; and improving biodiversity. They are a central component of outdoor spaces – and can be incorporated into playgrounds and other parts of school grounds – to help combat climate change. The next section of this pack provides ideas, signposting to resources and potential schemes your school could join in relation to tree planting and green spaces.

6. Green Spaces and Green Initiatives Beyond School


Green spaces are vital for combatting climate change and improving our environment.

Trees, for example, not only absorb carbon, but they **also provide cooling in hot spots (sometimes known as ‘green shielding’)**; **act as a noise and pollution barrier** when put in a row between a road and schools/ parks/houses; and are **a great habitat for living creatures (improving biodiversity)**. One lesser-known fact is that soil can absorb even more carbon than trees, but at a slower rate, and therefore having marshlands and peatlands are also a great way to help tackle climate change. Furthermore, we know that access to green spaces is vital for improved physical and mental wellbeing. There are a number of initiatives your school may wish to consider:

- **The Essex Forest Initiative** is in the second year of its five-year programme to **plant thousands of trees** in order to offset carbon, with many additional environmental, health and wellbeing benefits. It is supported by £1 million in funding. If **your school is interested in planting trees on school land**, please contact the **EFI directly** to explore options. Please note that the tree planting season is from November to February/ March.
- **The Queen’s Green Canopy** is a **tree planting initiative** to mark the Queen’s Platinum Jubilee in 2022. Schools may be eligible to apply for free trees from the Woodland Trust under the **‘Free trees for schools and communities’** scheme as well as **tree planting resources**.
- The Woodland Trust’s **Green Tree Schools Award** encourages outdoor learning about trees, woods and wildlife.



Tree planting season is from November to February/ March.



Schools may be eligible to apply for **free trees** from the Woodland Trust.

- The Tree Council's 'Young Tree Champions' encourages young people to be a **'Force for Nature'**. The Tree Council also offers a number of **resources** (www.youngtreechampions.org/activities), including training webinars, curriculum linked activity sheets and guides.
- Essex is fortunate to be home to a number of **country parks and other diverse habitats**, including woodlands and beaches. **Explore Essex** provides a full list of these destinations and can assist with **school trips** (which can include an Education Ranger leading your group for the day). Could trips linked to the curriculum be a possibility for your school? A number of education resources are available to support outdoor learning. Please see page 34 for more information.
- **Essex Outdoors** provides outdoor learning at its four centres across the county – with the aim of delivering an inspiring educational experience beyond the classroom.
 - » **Outdoor activity sessions for SEND students** – available all year round with a range of activities tailored to weather conditions. Students can attend Essex Outdoor sites, where trained instructors can offer an inclusive and exciting experience.
 - » **Forest Schools** – Essex Outdoors offers both onsite (at an outdoor centre) and in school visits, where education rangers work to deliver outdoor learning sessions. Outdoor Forest School sessions are ideal for 30 students and can be a great way of connecting children with the world around them. Essex Outdoors is an active member of the Forest School Association (please see below).



- **The Forest School Association** emphasises **outdoor learning to allow children to learn about nature, while building their knowledge and skills.** It allows children to explore issues such as risk and wellbeing, while providing them with both the space and support necessary to develop self-guided learning.
- **The Wilderness Foundation** offers nature-based outreach programmes and nature therapy camps, along with wilderness trails that enable adults and youth to explore unspoilt wild places. It also runs a **Green Influencers Scheme** for young people.



- **Planet Super League** combines football with sustainability and tackling climate change. It has a range of football/climate related initiatives, as well as incentives and a **league table** for schools which take part.
- Persil's **Dirt is Good Project** and **Dirt is Good Academy**, which aim to encourage children to learn about the outdoors, the environment and climate and to feel empowered to make a difference.
- There are a number of popular schemes which reward climate and environmentally friendly efforts made by young people, including the **Blue Peter Green Badge Award**.
- Schools may wish to consider working with local community groups or their local parish to promote green areas and protect the local countryside.
- Can you bring the community to school? Danbury Park Community School successfully applied for a **free crisp packet recycling bin to be hosted on its site.** This has seen parents and students bring these difficult to recycle items into school and Danbury successfully become a centre for recycling an item which may otherwise have ended up in landfill. You can find out more about obtaining recycling bins on the **Terracycle website**.



- **Litter picking** can take place on school premises, at break times or form times, but can also be carried out in tandem with community litter picking groups. They may be able to provide advice, equipment or information about how pupils can join community litter picks (with parental consent). District councils across Essex – including **Uttlesford** – offer to lend litter picking equipment to schools and will also organise collection of the litter for disposal. It is worth contacting your district council to see what provisions are available. There are a number of litter-picking resources and idea packs available, including from **Countryside Classroom**. There is currently a limited amount of surplus **litter-picking equipment available for free** for schools to rehome. Please contact **Juliette Raison for more information**.
- **Climate Committee** – As discussed on page 3, you may wish to set up or develop an existing climate committee. You could consider including (or creating a separate committee) which invites members of the local community to explore what you can do together to make a difference. This is an opportunity for adults and children to work together on a shared mission that matters to us all.



CASE STUDY

The OMEP-UK Early Childhood Education for Sustainable Citizenship (ESC) Award Scheme has been developed to ‘support the early years sector to become more knowledgeable about sustainable development, and to inspire parents, practitioners, and children to work together to create a more sustainable future’. The OMEP-UK Awards were developed following international collaboration with UNESCO.



★ **Jayne’s Nursery in Chelmsford took part in the scheme and achieved a Bronze Award in 2021.**

The award is organised around an ‘ESC passport’, which each child receives and completes activities with their parents, in order to gain stickers to put into their passports.



Other Schools in your Community and School Networks

Your neighbours, residents and businesses are not the only important elements of your community, other schools in your area are integral as well. At both district and county level, there is a wealth of activity underway on a school-by-school basis to tackle climate change and improve the environment. How can this be harnessed?

There are lots of ways to achieve this. Something as simple as reaching out to a neighbouring school to share best practice could lead to new ideas and potential collaboration.

Innovative forums can lead to the sharing of ideas from both pupils and teachers.



The Schools Climate Network is a forum where schools can share best practice, access and relevant resources, as well as support one another in their ambitions to reach net zero by 2030.

The Multi Schools Council

operates across Essex and gives young people the chance to express their concerns and priorities. During this forum, young people voted global warming and pollution as one of their three top priorities. They were able to discuss the issue and make recommendations, including a ban on all plastic bags in schools by 2025. It was also agreed that an annual Essex Green Day will be held (6th July 2022), with all schools welcome to attend. Please contact **Kierran Pearce** if you would like to find out more.

Essex Green Day will be held on 6th July 2022

The campaign seeks to reach **net zero** for schools by **2030**

Ashden leads on the **Let's Go Zero** campaign (mentioned on page 5). It includes 700 schools in its network. The campaign seeks to reach net zero for schools by 2030 and for young people to be provided with a robust education around sustainability and prepared to enter adult life receptive to zero carbon jobs and lifestyles. You can find out more and join the Let's Go Zero campaign and extended network **here**.

The Young Essex Assembly is an important platform for the young people of Essex to discuss the issues which matter to them, including climate change. The two co-chairs of the Essex Climate Action Commission are members of the Young Essex Assembly.

Why not encourage students to **stand for election** to join the Assembly?

7. Useful Teaching and Learning Resources

Primary



Circular Economy

- [BLUEPRINT Schools - Fox's Waste Adventure](#)



Climate Change, Sustainability & Environment (General)

- [Earth Cubs](#) – games, videos, puzzles, badges and tree planting
- Young People's Trust for the Environment – [Better Planet Schools](#) (online environmental education programme)
- [NASA Climate Kids](#)



Food & Agriculture

- [Food and Farming Day – Essex Agricultural Society](#)
- [School Food Matters](#)



Outdoor Learning & Nature

- [Outdoor Classroom Day](#)
- [The Young Tree Council](#)
- [Wildlife Watch](#)



Plastic

- [Environment Agency](#)



Power & Water

- [School Visits to the Museum of Power](#)

Secondary



Climate Change, Sustainability & Environment (General)

- [Royal Meteorological Society](#) – How do climate negotiations take place and how can we stage our own?
- [Science Museum – Carbon Cycle Caper](#)
- TedEd Video Resources –
 - » [Can we create the “perfect” farm?](#)
 - » [The state of the climate crisis](#)
 - » [Earth School series](#)

Primary and Secondary



Climate Change, Sustainability & Environment (General)

- Department for Education
 - » [Sustainability and climate change: a strategy for the education and children’s services systems’](#)
 - » [Top tips for sustainability in schools](#)
- [do your :bit](#)
- BBC Bitesize –
 - » [The Regenerators](#)
 - » [Earth School](#) – Video resources across energy, transport, materials, food, nature and people
- [Encounter Edu](#)
- [Essex LOtC Provider Network Group](#) – School trips and bringing external expertise into schools
- [Generation Earthshot](#)
- [Our Planet](#)

- [Oxfam GB](#)
- [Planet & People](#)
- [Practical Action](#)
- [Sustainability First](#)
- TedEd Video Resources –
 - » [Why is the world warming up?](#)
 - » [What is net zero?](#)
 - » [Why is 1.5 degrees such a big deal?](#)
 - » [Where does all the carbon we release go?](#)
 - » [Why act now?](#)
- [ThoughtBox Education](#)
- [Transform Our World](#)
- [Wilderness Foundation UK – Wild Schools](#)
- [World’s Largest Lesson](#) – Climate focused resources and information about the ‘Climate Changemakers Campaign’



Food & Agriculture

- [Barleylands Farm Park](#) – School visits
- [Food Miles Calculator](#)



Nature & Outdoor

- [British Beekeepers Association](#)
- [Essex Country Parks](#) – Education Ranger led days
- [Essex Outdoors](#)
- [Essex Wildlife Trust](#) – School trips and education facilities
- [Kew Gardens](#)
- [Outdoor Classroom Day](#)
- [The Royal Parks](#)
- [Trees for Cities](#)
- [World Wildlife Fund](#)



Plastic

- [Countryside Classroom](#)
- [Ocean Plastics Academy](#)
- [Plastic Clever Schools](#)



Transport and Travel

- [Living Streets](#)
- [Sustrans](#)
- [Safer Essex Roads Partnership](#)
- [Transport for London](#)



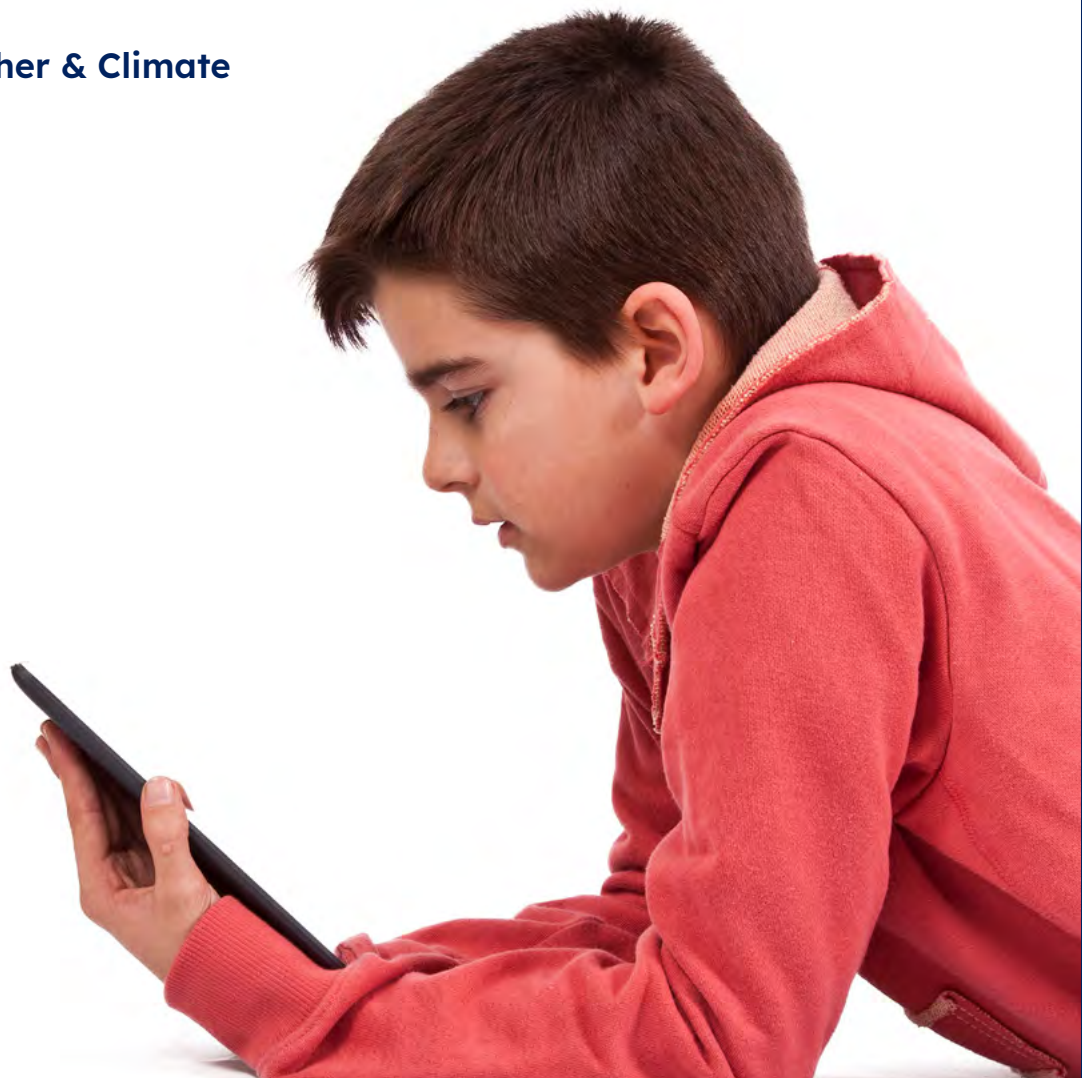
Water

- Anglian Water –
 - » [School Resources](#)
 - » [Online STEM lessons](#)



Weather & Climate

- [Met Office](#)





LET'S GO GREEN!

We hope that you have found this resource helpful and informative about the steps you can take at your school to reduce its impact on the environment and to help our county reach net zero.

We are keen to make sure that this document remains relevant and helpful to schools over time. Therefore, our aim is to produce updated versions of this action pack as discussions, legislation and priorities around climate change evolve. If you have any ideas or resources which could be included in this pack – or if you think an example of your school's climate change action could be incorporated – we would like to hear from you. Please contact: environment@essex.gov.uk

The resources and information in this pack have been compiled in consultation with individuals from across Essex County Council, school teachers, charities and not-for-profit organisations. We are extremely grateful for their expertise, insights and time.

This pack is one of three. With one having been produced for residents and another for businesses. You can find out more about these packs [here](#)





References

- 1 ['UK leads 45 governments in new pledges to protect nature', UK Government press release, 6th November 2021](#)
- 2 [Food and Agriculture Organization of the United Nations](#)
- 3 [Let's Go Zero](#)
- 4 [Energy Sparks](#)
- 5 [Ibid](#)
- 6 [Southend on Sea Borough Council, 'Council celebrates carbon reduction success across 20 primary schools' \(press release\), 21st December 2021](#)
- 7 [Mitie, 'Mitie helps Essex schools cut their carbon with solar panel rollout', 5th July 2021](#)
- 8 [Interreg, 'Powering positive change at Danbury Park Community Primary School', 9th December 2020](#)
- 9 Environment Agency data
- 10 ['Flood risk assessments: climate change allowances', www.gov.uk, 19th February 2016 \(updated 6th October 2021\)](#)

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