



Excalibur Academies Trust
Sustainability Strategy
2021

Sustainable development means meeting the needs for all people now – including protecting the natural habitats that are essential to our survival – without compromising the ability of future generations to meet their own needs. We need to protect the environment for future generations, make our economy more environmentally sustainable and improve our quality of life and wellbeing.

Multiple sources of evidence suggest that being a sustainable school raises standards and enhances young people's well-being. Research supports the idea that this is because sustainable schools engage young people in their learning, thereby improving motivation and behaviour, and also promote healthy school environments and lifestyles. Saving resources such as energy and water can also save school significant sums of money. There are also physical and psychological benefits related to walking or cycling to school, eating more healthily and spending time in nature.

The Trust is committed to sustainable development and believes it is important to prepare young people for the future. Our approach is based on the belief that schools perform better when they take responsibility for their own improvement. We want schools to make their own judgements on how sustainable development should be reflected in their ethos, day-to-day operations and through education for sustainable development. The Trust has therefore formed a sustainable development strategy group which will take over from the less CO2 project group. A member of this group will also lead a student strategy group across the Trust. The strategy group has worked on a vision and key areas for the schools in the Trust to action over the next 3 years.

The Trust recognises the challenges to sustainability that nationwide crisis such as Covid 19 can result in. We would aim to continue to consider our values and targets during such times and ensure we are mitigating the impact such crisis may have.

Vision for Excalibur Academies Trust Sustainability Strategy -

- **Awareness** - to further environmental knowledge and understanding, allowing us to make informed decisions and reflect upon our place in the world.
- **Action** – to carry out practical, positive, evidence-based changes to make a significant difference to our environmental impact.
- **Hope** – to inspire active hope and encourage lifelong commitment to making the world a better place.

Targets -

- Reduce carbon footprint of the Trust by 30% from 2019 to 2025 and to 0% by 2030
- No single use plastic by 2024
- Sustainability themes and environmental issues/action embedded in the curriculum by 2023
- Zero waste to landfill by 2030
- All schools in the Trust to use renewable energy suppliers for electricity by 2024 and all by 2030
- Reduce overall energy use by 15% by 2025 from 2019

Environmental Sustainability Themes -

- Food and drink
- Energy and water
- Travel and traffic
- Purchasing
- Waste and recycling
- Building and grounds

- **Inclusion and participation**
- **Global impact understanding**
- **Local wellbeing**

All of the above to be underpinned by ensuring all choices we make are ethically considered.

The Trust can be more sustainable by taking the following actions -

Food and drink	<ul style="list-style-type: none"> ● Supply healthy, local and sustainable food and drink ● Show commitment to the local environment, social responsibility and animal welfare ● Reduce amount of meat and dairy consumed ● Maximise use of local suppliers and reduce airfreight food miles ● Grow own produce ● Ensure reusable packaging ● Reduce food waste ● Recycle food waste ● Create water refill stations ● Curriculum – teach about food and its origins, teach about pollination and production
Energy and water	<ul style="list-style-type: none"> ● Focus on energy efficiency in all areas ● Focus on developing renewable energy on site where possible ● Conserve and reuse water ● Participate in toilet twinning scheme ● Audit energy use through less CO2 ● Change to renewable energy suppliers
Travel and traffic	<ul style="list-style-type: none"> ● Use motorised vehicles and air travel when only absolutely necessary ● Carbon offset school trips within cost ● Encourage the reduction of car usage ● Promote cycle to work/school ● Encourage use of electric vehicles through placing charge points on site ● Encourage reduction of travel for face to face meetings with use of Microsoft Teams ● Implement “no idling” policy within school grounds ● Build covered lockable bike sheds for staff and students ● Develop a car sharing app ● Promote the act of walking to all stakeholders ● Curriculum – understanding of impact of transport
Purchasing	<ul style="list-style-type: none"> ● Adopt sustainable procurement practices ● Use only goods of high environmental and ethical standards from local sources where practicable ● Working collaboratively with geographically close schools ● Engage students in budgeting
Waste and recycling	<ul style="list-style-type: none"> ● Increase value for money by reducing, reusing, repairing, rotting and recycling as much as possible ● Create uniform recycling point ● Reduce amount of photocopying and paper use ● Use technology to manage classrooms – use One Note and allow access to technology for students ● Ensure separate recycling for individual items – i.e. crisp packets, pens etc for school and parents ● Reduce amount of landfill waste

	<ul style="list-style-type: none"> Curriculum – recycling and waste within teaching
Building and grounds	<ul style="list-style-type: none"> Manage and where possible, design buildings in ways that visibly demonstrate sustainable development to everyone who uses the school Complete a buildings and grounds audit – Powerful Allies and create action plan from this Bring students closer to the natural world – forest schools No pesticides and herbicides on school grounds – Pesticide Action Network Develop biodiversity within school grounds and reduce maintenance Develop wildlife havens Develop food production and compost areas Curriculum – sustainable living, biodiversity
Inclusion and participation	<ul style="list-style-type: none"> Be models of social inclusion Enable all students to participate fully in school life alongside a respect for human rights, freedoms, cultures and creative expression Involve all stakeholders and local community in sustainability projects Ensure there is a sustainability adult working team – Governor, Parent, School lead and school staff reps Ensure there is a sustainability student working team Board member and lead SLT Excalibur Central oversight
Local wellbeing	<ul style="list-style-type: none"> Be models of corporate citizenship within their local areas Provide activities that improve the environment and quality of life of local people Link into local initiatives - Wildlife Trust, Eco Church Develop links with local charities Involve PTAs
Global citizenship	<ul style="list-style-type: none"> Be models of global citizenship, enriching their educational mission with activities that improve the lives of people living in other parts of the world

Trust Sustainability Action Plan -

Action	Comments	Responsible	Date	RAG
1. Trust to declare a climate emergency		Board	Dec 2020	Green
2. Sustainability group to be set up	Set up last academic year but unable to continue due to Covid 19. Will reconvene in November	Head of Strategy	Nov 2020	Green
3. Sustainability plan and toolkit to be written	Written out of discussions with group and research. Student feedback also given. Delayed due to Covid.	Head of Strategy	Oct 2020	Green
4. Plan etc to be discussed at Board		CEO	Nov 2020	Green
5. Actions and targets in plans to be discussed with Principals and placed into AIPs. All schools to have a	Needs to be agreed by Board first Principals to choose 2 areas to focus on for the year.	Head of Strategy Principals	May 2021	

sustainability action plan.	Sustainability group to access action plans, discuss and support.			
6. Actions and targets to be discussed with Central Team and placed in development plans	Needs to be agreed by Board first Central team to choose 2 areas to focus on for the year.	Head of Strategy Central Team	May 2021	
7. Sustainability to be included on any Excalibur teaching and learning audits	To be put into school audit documentation	Heads of Primary and Secondary Education	May 2021	
8. Training programme to be designed for staff and students across the Trust	Will need to go into 2021/22 planning	Sustainability group	June 2021	
9. Common INSET day on sustainability planned	Will need to go into 2021/22 planning and be virtual	Sustainability group	Sept 2021	
10. Secondary student strategy group formed and primary and lead by members of core group	Will need to virtual – Bobby Walker and Jonny Friend Secondary Richard Smith and TBA Primary	Sustainability group	Sept 2021	
11. Each school to allocate a governor to be lead on sustainability	Sustainability director to discuss with Chairs of Governors	Sustainability Director	May 2021	Green
12. Governors to monitor at school level sustainability action plan	To be included in monitoring plan and also school lead on sustainability to present to one LGB a year	Sustainability Director	July 2021	
13. Budget available for initiatives	Will need to be planned for 2020/21	Board	Sept 2021	
14. To develop a method to model school carbon footprint	Core group to work on this	Core group	Sept 2021	

TIPS AND TOOLKIT FOR SCHOOLS

Top tips to reduce carbon in schools -

Why should schools reduce their carbon emissions?

- Saving energy saves money. Case study evidence suggests that an average secondary school could save up to 20% off its energy bills through replacement of heating, lighting and cooling equipment.
- Pupils hold strong concerns about climate change, and they are right to do so. Current projections indicate that the impact of climate change will grow even more over the course of the next 30 years and it is they and their children, rather than present day adults, who will face the most significant impacts.
- Reducing emissions by adopting active modes of travel (cycling, walking,) has significant health and wellbeing benefits and helps reduce travel costs.
- Reducing emissions helps mitigate Climate Change
- Providing a good example for students, staff and the community.

The law, and definition of a carbon footprint

- The 2008 Climate Change Act requires the UK to reduce its greenhouse gas emissions by at least 34% below 1990 levels by 2020 and by at least 80% by 2050. UK law states this should be zero by 2050.
- A carbon footprint is most commonly defined as the total set of greenhouse gas (GHG) emissions caused directly and indirectly by an individual, organisation, event or product. It is labelled a carbon footprint as commonly the total GHG emissions are converted to CO₂ equivalent (CO₂e) emissions.

How much carbon do schools generate?

Schools account for around 2% of UK greenhouse gas emissions, roughly the same as all the energy and transport emissions of Manchester, Newcastle and Bristol combined. This is equivalent to 15% of the country's public sector emissions.

How do schools generate carbon?

Greenhouse gas emissions from the schools sector are divided into four main sources:

- Energy use in school buildings;
- Pupil and staff travel to and from school and other journeys undertaken on school business;
- Emissions produced by companies that supply goods and services to schools, for example, a school food provider. This could include emissions related to their use of energy to run their buildings and produce their food products, as well as the emissions associated with transporting their products to school sites; and
- Emissions from waste produced by schools.

Why are schools' carbon emissions increasing?

- Schools' emissions increased by 12% overall between 1990-2006, with energy and travel now making up a greater proportion of the whole.
 - Electricity increased by 31% primarily due to greater use of ICT and the extension of school hours
 - Emissions from school travel and transport increased by 59% between 1990 and 2006: journeys to school and private car use for those journeys increased considerably.

A snapshot: a school with a low carbon footprint could have:-

- funding through feed-in tariffs and renewable heat incentives.
- Children and staff travelling to school by walking and by bike, facilitated through improved active travel infrastructure and through increasing parental, pupil and school staff awareness of the benefits of active travel.
- Lift share schemes where students live far away and cannot access public transport.
- A wide range of their waste recycled or composted and, in some act as hubs for community recycling schemes
- Individual members of staff and students who are responsible for monitoring energy use to ensure money and carbon are not wasted
- Sustainable procurement choices as a first choice option
- Pupils who were empowered to act on climate change, both within the school by reducing emissions and in their home environment.
- Reduce animal based products in schools.

Suggested way forward -

- 1. Make a commitment to reduce carbon emissions**
 - Publish this commitment in the school ethos and policies and ensure it is part of discussions with governors and amongst school leadership teams.
- 2. Understand the business case for carbon reduction**
 - Different actions will have different costs associated, and there are significant financial savings to be realised by the school and by parents.
- 3. Recognise differing roles of school staff to reduce emissions**
 - Change is not dependent on everyone taking action – even one person can make a difference – but the more people that can act in a co-ordinated fashion, the more effective the result, and the more likely that action will be sustained.
- 4. Empower individuals**
 - While the most effective approaches will involve more than one individual, it will be important to ensure that someone is responsible for leading and maintaining progress. The individual will need strong backing by the leadership team and carbon reduction must be accorded the necessary status to ensure that others take note and engage.
 - Make sure that those participating in carbon reduction projects have access to information, training and opportunities to network.
- 5. Link action to reduce emissions with the school curriculum**
 - Linking what is taught in the classroom to carbon reduction activity underway in the wider school environment can build momentum for change through pupil leadership and involvement.
 - Curriculum to encompass all environmental issues across all subjects.

Roles of individuals in reducing school-related carbon emissions -**Excalibur Academies Trust Board of Directors**

The Trust Board can ensure that this a priority on its agenda and inspire and facilitate action.

Excalibur Academies Trust Central Team

To carefully consider procurement and work with schools to reduce CO₂. To facilitate the sharing of best practice and lead the sustainability strategy for the Trust.

Principals

Principals need to visibly endorse action to reduce carbon emissions. They do not need to do the work themselves, but without their support it is unlikely that sustainability will be embedded in the school.

School Leadership Team

The SLT needs to actively support carbon reduction, including reviewing progress as part of SLT meetings, and providing support and status to those running projects within the school.

Students

Students are both the most significant users of the building and the most enthusiastic about change. They can also drive change, communicating with fellow students within their school and across the Trust, monitor progress, celebrate successes and organising events.

Staff

Staff help drive and embed behaviour change through integrating learning about this area into teaching, both at a theoretical and practical level. They can also be role models in changing behaviour, for example, by cycling or walking to school.

Business Managers

Business managers oversee school budgets and expenditure and are likely therefore to be concerned with energy bills. Along with the Principal they can have a clear impact in this area firstly by auditing the energy use in their schools.

Premises managers/ICT

These people need to become experts in managing heating, lighting and other systems to reduce CO₂.

Governors

Governors are an important influence on the school and it is suggested that sustainability be a regular update item at their meetings. These meeting minutes are then seen by the Board.

Catering and cleaning staff

Another vital group, whose decisions have a big impact on a school's use of energy and management of waste, as well as making a difference to procurement related emissions. Also suggest that cleaning products used in schools are environmentally friendly.

Parents, families and the wider community

Parents, families and the wider community can be inspired to take action themselves by the work of the school and, in turn, add energy and enthusiasm to the work the school is doing.

Top Tips to reduce energy and water use in schools

Energy and water are major costs in schools and a major part of schools' environmental impact. Some schools will have greater scope for savings than others but, overall, more than 20% of energy is wasted, and simple good housekeeping can reduce fuel bills by 10%.

1. **IF YOU ONLY DO ONE THING, EDUCATE THE STAFF AND CHILDREN TO TURN OFF WATER AND ENERGY-USING APPLIANCES WHEN NOT IN USE!!**
2. **Use your building systems properly to save energy**
 - Simply knowing how to manage heating or lighting controls can slash energy wastage, save money and reduce emissions. The Carbon Trust or Less CO₂ project can advise you on simple building management techniques to help you save energy.
 - If your heating or lighting system is relatively new, talk to the company that installed it to make sure you are using it effectively.
 - Start with the basics e.g. switching off lights and electrical equipment when not in use. Many schools have groups of "eco-champions" who check at the end of each day for equipment or lights that have been left on, switch them off and place penalties (e.g. red card) on the staff responsible.
 - Recognise success. Where monitoring shows that a difference has been made, then celebrate and help to maintain enthusiasm for going further.
3. **Share information with pupils and staff**
 - Encourage and reward ideas and activities which will reduce energy use.
 - Teachers can bring energy information into lesson plans, most obviously within science and maths lessons. Engaging pupils with meter readings, energy management statistics and comparisons of numerical data helps them not only to improve numeracy skills but also to develop their own understanding of energy and how it is used, an understanding which can go on to influence longer term behaviour both at school and in the home.
 - Many schools energy schemes have been devised and are managed by pupils themselves, making the most of their enthusiasm and creativity.
4. **Upgrade heating controls**
 - Reducing the temperature in a building by 1° centigrade will save 5 –10% of the heating bill.
 - Operating the heating systems for an hour less each day will save a similar amount.
 - Modern heating controls are accurate, tamperproof and have the facility for 7 day programming – the heating should be set to operate at different times of day for each day of the week i.e. school empty early on a Friday so change the times. See also www.thecarbontrust.co.uk
5. **Use energy efficient lighting**
 - Lighting accounts for around half of the electricity used in a typical school. Lighting controls are often very economical. In areas which are frequently used, install lighting sensors. See also www.est.org.uk
 - Failed lamps can be replaced with energy efficient lamps, which last longer, at minimal cost
 - In many cases, 38mm diameter fluorescent tubes can be replaced with 26mm versions which use 8-10% less electricity. Compact Fluorescent Lamps (CLF) use 80% less than tungsten bulbs and last much longer. Also replacing where possible with LED lighting.
6. **Install smart metering**
 - Smart metering provides information about how much energy is used and when it used, helping you to understand energy use and how it can be saved.
 - Automated meters can take readings at specified intervals, providing information on patterns of use, and levels of demand (e.g. equipment left running) when buildings are unoccupied. The data they provide can also be used for teaching and learning. www.est.org.uk
7. **Manage ICT loads**

- The use of ICT in schools is now considerable. ICT equipment not only uses electricity directly, but often places further demands on electricity needed for lighting and cooling. The electricity used by ICT can be significantly reduced by selecting energy efficient equipment and enabling power management features. Rooms with interactive white boards should be set up to allow users to manage blinds and lighting quickly and conveniently.
- 8. Draught strip windows and doors**
- Eliminating unwanted draughts is one of the most effective ways of saving money and improving comfort. Depending on the time of year, the gap between a door or window and its frame can vary by 3mm. On a standard door this is a hole equivalent to a house-brick. Draught stripping solves this problem. Further information is available from www.est.org.uk
- 9. Renewable energy**
- Small scale renewable energy systems are almost pollution-free and will help to reduce energy bills. They can also generate interest in energy efficiency amongst pupils and provide a valuable teaching resource.
 - Renewable energy systems that can be appropriate to schools include wind turbines, biomass, solar heat and power and heat pumps. Information on renewable energy systems is available for the Carbon Trust.
- 10. Understand your bill and how much energy is used in school**
- Energy use in school buildings is very much under the control of the individual school. Every school should know how much electricity it uses, alongside other fuels for heating and hot water. Understanding energy bills is the first step – are they accurate and based on actual meter readings? Is energy up or down compared to the previous year? Many schools will also be able to use their Data Energy Certificate produced annually to compare their energy use to national averages and to see how energy use has changed from the previous year.
 - The amount you pay for electricity may depend on when you use it, and not just how much you use. Using off peak (nighttime) electricity through timers and reducing peak demand can save significant amounts of money.
 - When you receive the bill, check it to make sure the cost relates to the consumption and that it is correctly related to the tariff. Check consumption to see if it seems reasonable for the time of year, the severity of the weather or the consumption of water related to the number of people.
 - Think about having an energy audit done. This can be done through the less Co2 project or see www.carbontrust.co.uk
- 11. Water economy**
- Water is a scarce resource and costs are rising rapidly. A school that is equipped with water conservation devices may use less than half the amount of water used in other schools.
 - Installations such as cistern dams, urinal controllers, flow restrictors and self-closing taps save water and money. Also consider the use of rainwater for cisterns. www.environment-agency.gov.uk.savewater
- 12. Insulate hot water pipes**
- Keep runs of pipe work short and lag pipes properly – a great deal of tepid water may be lost before the hot water comes through. Lagging pipes not only saves energy but also reduces the risk of pipes freezing in the cold months.
 - It is also possible to obtain more environmentally friendly insulation.
- 13. Check for (and repair) water leaks)**
- Underground leaking pipes can mean a huge loss of water, which will cost your school money. Check your water meter regularly.

Further information available from :

The Carbon Trust – www.carbontrust.co.uk

The Energy Saving Trust – www.est.org.uk

Renewable Energy Association – www.r-e-a.net

Waterwise – www.waterwise.org.uk

Top Tips for sustainable purchasing in schools

All procurement decisions will have some impact on sustainable development. A good procurement decision is one that evaluates these impacts in the same way that other procurement factors are evaluated. Initial cost, durability, running costs, management, and disposal issues need to be assessed and will all influence the final procurement decision.

Forty two per cent of carbon emissions from the schools sector come from procurement – the day to day buying choices and decisions made by each school. **This is nearly one per cent of the total carbon emissions in the UK.**

1. Develop procurement expertise – nominate and train someone to coordinate everything centrally

- Developing professional skills in any areas of your work helps to improve your efficiency and effectiveness

To support schools in understanding procurement and procurement law, the DFE has written “ The Essentials Procurement Guide for Schools.”

2. Plan ahead: identify what you need early to get the best deal

Thinking about basic procurement questions before buying can help you incorporate sustainable factors in any purchase.

- Is your purchase really necessary?
- What alternative solutions may be available e.g. sharing equipment or services with another school?
- Can you time your purchasing to avoid peak buying periods (such as the end of the financial year? High demand reduces your scope to secure good deals with suppliers.
- Could you gain from economies of scale by delaying short term purchases where possible? Bundling together purchases from the same supplier can cut down delivery costs – less mileage means less fuel consumed to supply you.
- Consider talking to other business managers in the Trust to find common things that are ordered at similar times and bulk buy amongst a group of schools.

3. Buy energy efficient and sustainable consumer goods

- Schools can already routinely purchase many products and services, including:
- Recycled paper and stationery products;
- Cleaning products with reduced environmental impact
- Office machinery which is energy efficient (look for the Energy Star label
- Kitchen equipment which is energy efficient (look for the A-G energy rating)
- Vehicles which are fuel efficient (demoted by an A-M rating) and
- Water efficient equipment

4. Don't buy unless you need to – does anyone have a spare?

Before going ahead with a purchase:

- Check whether someone else can spare or loan you the item you need. Don't just look within your own school – can specialist equipment be shared between schools (for example equipment for field trips)?
 - Hold a stationery amnesty – collecting in unused pens, staplers, highlighters and other supplies from classroom cupboards and desk, to restock the main stationery cupboard. Think about other commonly-used materials and supplies that may have been mis-stored and lost (cutlery, IT accessories, books) - is there scope for regular amnesties or scavenger hunts.
- 6. Don't spend hours saving a pound**
- Your time is a procurement cost – it's a false economy when a tiny purchase price saving takes many hours to achieve. Sustainable procurement means focusing your efforts on the areas of greatest potential impact over time, like energy and water efficiency, purchasing ICT and furniture, rather than the most viable or dramatic “green” purchases.
- 7. Look for alternatives to branded products**
- Our familiarity with big-name brands doesn't guarantee that they offer best value for money. Less well-known brands may be as good and reliable as their well advertised rivals – and at a more competitive price.
 - Why not carry out market testing in your own school?
- 8. Think sustainably about the paper your school buys and uses**
- More than half of the waste produced by schools is paper or card. Take simple action: buy recycled paper, use paper wisely (only printing when necessary and printing on both sides), replace paper communications with email where appropriate, and make sure that any remaining waste paper is recycled.
 - If these were standard practice across the school sector, we could see a reduction in carbon emissions of over 150,000 tonnes by 2025. That equates to over 7% of procurement emissions saved, from paper alone.
- 9. Buy food locally and seasonally**
- School food accounts for 22% of the procurement carbon footprint. Reduce carbon by buying locally and encouraging suppliers to provide fresh and seasonal produce.
 - Some organic products are also less carbon intensive than nonorganic foods. Find out more about healthy and sustainable options from the Schools Food Trust.
- 10. Improve your buying power and work collaboratively**
- Group together other local schools in your area to get better purchasing deals. Schools working together can benefit from :
 - Increased purchasing power and more sustainable goods and services when they are requested'
 - Improved collective ability to source goods and services – some companies see individual schools as too small to bother with; and
 - Experience and understanding of sustainable development issues – a consortium enables all schools in it to benefit from the shared specialist knowledge of individuals.
- 11. Know what you want – get the best deal for your money -**
- Sustainable procurement is about getting the best price for the right product – goods and service with high standards of environmental, social and ethical performance. This may mean a bigger discount in return for bulk buying or arguing with an additional service such as ongoing maintenance support.
 - With contracts, the quality of the service plan you agree can be critical in improving sustainability. A contract incorporating regular and reliable servicing will help to ensure, for example, that copiers and printers don't waste paper and ink by repeatedly jamming or ruining print runs.
- 11. Get it in writing – read and understand the small print**

- It's what's in writing that matters. If you rely on verbal agreements with a supplier - that a particular purchase will be delivered in a specific way, for example, or services will include certain maintenance commitments – you have no effective way of ensuring that you get what you've paid for.
 - Understand your contract.
 - Make sure you get what your contract entitles you to – such as regular servicing of kitchen, lab or IT equipment.
- 12. Share best practice – if you've made a good sustainable deal, let other schools know about it**
- Find out if your existing suppliers are offering deals on sustainable products to other local schools. This opens up possibilities to pull together to get an even better deal from the supplier.
 - Market testing – for new sustainable products, the experiences of other schools are essential in informing your own decisions and vice versa. Do “green” cleaning products and paints work well? How low energy IT or other equipment purchases resulted in reduced power bills?
 - Have you found a good and reliable sustainable supplier whose business can be expanded by making them known to a wider potential market?

Top Tips for sustainable school travel

I. Encourage cycling by providing secure bike storage, lockers and changing facilities.

- Cycle parking should be secure, visible to school staff, durable, well lit, easy to use, accessible and sheltered.
- Check out the Sustrans information sheets *Cycle Parking for Schools and Cycling to School* at www.saferoutestoschools.org.uk

2. Set up a “walking bus” or an alternative scheme

- A group of children can walk to or from school supervised by volunteer adult escorts. Both adults and children wear high visibility jackets. The “bus” follows a set route with agreed pick up points.
- In a “buddies” scheme, pupils walk with friends, siblings and/or older/younger pupils.

3. Incorporate sustainable travel activities across the curriculum.

- Involve pupils in monitoring your current travel to school practice and identifying possible solutions
- Look for other links to sustainable travel as a topic across the curriculum.

4. Hold special promotions for active travel

- Nominate one day a week as walk/cycle-to-school day. Once a week can later be extended to two days or a whole week.
- Devise a pedometer challenge where pupils or classes try to achieve targets or beat their personal best.
- Hold a bike MOT day with local cycle shops to service bikes and raise awareness of bike maintenance.
- Take a look at www.walktoschool.org.uk and www.sustrans.org.uk/bikeit for more ideas.

5. Arrange training for walkers and cyclists on independent travel

- This training could be part of PSHE or be offered as an out-of-school-hours learning activity. The Government approved standard – Bikeability – sets out the training and skills essential for cycle trips in today’s road conditions. See www.bikeability.org.uk
- The widely-used Kerbcraft model developed by Stratchclyde University is designed to teach pedestrian training skills to 5-7 year olds by practical roadside training. See www.kerbcraft.org.uk
- While involvement in national or local schemes is important, schools also need to move from “occasional” campaigns to more consistent programme of activity throughout the year.
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6. Spread the message to pupils and parents

- It is often parents who make the decision about how their children will travel to school. Fears about traffic and stranger danger, plus parental concerns about timekeeping and the need to balance other activities (e.g. the commute to work) can make the car the default option. If parents have a better understanding of different routes to school, the time they take and the safety measures that have been put in place, then more children will walk or cycle to school. www.sustrans.org.uk/what-we-do/safe-routes-to-school

7. Liaise with feeder schools to agree guidance for new pupils on sustainable travel

- Encourage pupils and parents to think how they might travel to their new school.
- Help them identify sustainable methods and most appropriate routes from Day One.
- Provide all relevant information to help parents and pupils choose to walk, cycle or use public transport.

8. Find ways to involve pupils obliged to travel by car

- “Park and stride” schemes encourage parents to park a little way from the school and walk the rest of the journey. These schemes can be set up from local car parks, supermarkets and leisure centres where there is a convenient route to school.
- Pupils can play a vital role in encouraging parents to take part and asking organisations for the use of their facilities.
- Encourage car sharing with “postcode coffee mornings” to help parents identify others who make similar journeys.

9. Work to improve bus provision and behaviour on school transport

- Talk to bus operators about modifying services, routes and timetables so that more pupils can choose public transport for school journeys.
- Poor behaviour and fear of bullying are given as reasons for not using public transport. Senior pupils can act as monitors on school services, identifying and eliminating unsocial behaviour.
- Have a look at www.wymetro.com/BusTravel/SchoolTransport/SAFEMark

10. Work with your local authority to identify safer routes and possible highway improvements

- Many local authorities support “Safer Routes to School” projects to encourage more pupils to walk, cycle or use public transport.
- Involve pupils, parents and carers in identifying the most popular routes, the main barriers to walking or cycling and any safety concerns.
- Sustrans has online maps of local pedestrian/cycle routes and can refer you to your local school travel contact.

11. Reduce emissions from school business journeys

- There are many “hidden” journeys taking place during the school day. These range from school minibuses travelling between sites/facilities to school trips and excursions, to journeys for meetings with the Trust or other schools. Take action to minimise their carbon impact e.g. combining journeys or encouraging walking, cycling or use of public transport. Staff who are driving minibuses can be supported for training on “smarter driving” which has a significant effect on fuel efficiency, saving up to 15p in every £1 spent on fuel. See www.energysavingtrust.org.uk/Travel

12 No idling on/near school site

- Ask parents and visitors to turn off car engines on school site as soon as they have parked.

Top tips to reduce waste in schools

Why should I do this?

Schools in England throw away the equivalent of **185 double decker buses of waste every school day!!** A lot of rubbish ends up in landfill sites, meaning we lose valuable resources. The majority of waste in school is recyclable. However, primary schools currently only recycle 14% of their waste and secondary schools 22%. A large proportion of waste from school is food, paper and card (75% by weight from primary schools and 70% by weight from secondary schools). It is generally more expensive to dispose of waste in landfill sites than it is to recycle.

1. Try to stop producing waste in the first place! REFUSE!

- Work with students to carry out a school waste audit on how much waste is produced, then classify the types of different waste and identify waste “hot spots” within the school. See further www.recyclenow.com/schools
- Develop an action plan to tackle your school waste. Track your progress with regular measuring or monitoring. See further www.recyclenow.com/schools
- Reducing your waste is a much better option, environmentally and financially, than recycling or any other waste disposal. You may also reduce your waste collection costs.

2. Reuse – think before you throw things away

- Encourage pupils to use reusable bottles for drinks. Install water fountains around the school and encourage pupils to drink water.
- Refill and reuse your old printer cartridges. It is often cheaper to refill than buy new. Cartridges can also take hundreds of years to decompose in landfill.
- Stationery: reuse old envelopes for internal mail or stick a new label over the old address. Do the same for old paper or plastic folders.
- Furniture: repair or repaint items of furniture to prolong their life. If you need something new go to gumtree or local recycling sites to find a secondhand replacement.

3. Recycle – recycling old products into new ones saves raw materials and energy

- Find out from your waste services provider what recycling services they offer – some of these might be free.
- Start with the biggest and most popular streams like paper, cardboard, cans, glass containers, plastic bottles and cartons.
- You can set up schemes for smaller, more specialised streams like ink cartridges, light bulbs, batteries and crisp packets.

- Make it easy to recycle by placing recycling bins in sensible areas, such as next to printers and photocopiers, classrooms and in the staffroom. These areas can be identified from a waste audit.
- Use clear posters and signs to encourage everyone to use recycling bins, and use them correctly, so this becomes second nature.
- There is no limit to how much you can recycle. With careful purchasing, determination and good recycling services you could aspire to be a ZERO WASTE school!

4. Swap it or give it away!

- Make it easy for pupils and families to swap, donate and exchange secondhand uniforms.
- Set up a scheme to collect old ink cartridges and mobile phones from the local community – some charities are keen to accept these to help raise funds
- Old books and computers can be sent abroad through donation schemes but check there are procedures for maintaining the equipment and disposing of it correctly at end of life.
- Could someone else use your unwanted items? Why not donate them to a local charity shop, advertise on Freecycle or Gumtree or exchange them in “swap shops” or “give and take” days.

5. Get to grips with your paper and card waste

- Put scrap paper trays in each classroom, and in the reception office, the copier room and other places where lots of paper is generated.
- Make double sided printing and photocopying the default or add clear instructions next to printers on how this can be done manually. Run short training sessions for staff so this approach becomes routine.
- Make black print the default setting on printers, photocopiers and multi-functional devices – this will significantly reduce your costs per copy and also the amount of expensive colour toners you will need to purchase.
- When recycling cardboard boxes, flatten them first to minimise space.
- You can also feed cardboard into your compost bins.
- Paper and card contribute around one third of all school waste. It is easy to make more efficient use of paper and card, and to recycle it when you're done. It saves money too.

6. Reduce your school's food and packaging waste

- Incorporate composting into science lessons or eco/gardening clubs. Understanding that there is no waste in nature – only food for other species – can be inspiring for all.
- You may be able to arrange a good waste collection through your waste services provider.
- Aim for waste free lunches by cutting down on food packaging, single-use and disposable items and so on.
- Get free online tools and guidance from WRAP by signing-up to tackle waste and share good practice at www.wrap.org.uk/hospitality
- Encourage healthy eating in the school by recommending no crisps, sweets or fizzy drinks days. All of these items produce waste.
- Do not use plastic cups, cutlery and plates at schools as recycling these is difficult. Use china cups and reusable cutlery in staff rooms and in refreshment and eating areas.
- Use pupil feedback to develop new menus, portion sizes, and favourite fruit and vegetables as this will cut down on food waste.
- Food waste makes up over one third or more of the school waste by weight. It rots in landfill producing methane, a gas more potent than carbon dioxide in creating climate change.
- Consider starting a wormery – see wormcity website – wormeries come in recycled plastic.

7. Purchasing

- Purchase paper, pencils and other stationary products made from 100% recycled materials if possible.
- Ask your suppliers to deliver items in returnable containers, or ones which can be recycled – they should be helping you to reduce your waste, not adding to your waste problem.
- Look out for “scrap stores” that collect items from local businesses and make them available to schools at very low cost.
- Procurement is responsible for a large share of carbon emissions from schools - that is emissions bound up in the manufacture of the good and services schools purchase. Sustainable procurement is now recognised as good for efficiency, value for money, fair trade and the environment – in short it is the best option for schools.

8. Use the power of the web

- Encourage staff to save and read documents electronically. Staff need to use SharePoint as a default.
- Send newsletters by email, and keep your website useful and up-to-date so staff, students and parents go to it as the first place for information. The use of email, document scanning, intranets, and online information can help to decrease paper use (and paper purchasing costs) if responsibly managed.

9. Think whole school – and think big

- Pupil led initiatives work well, with pupils taking charge of waste audits, monitoring and publicity campaigns.
- Regularly announce and celebrate waste successes in school assemblies, staff meetings, newsletters and on the school website.
- Use noticeboards and displays around the school to make waste minimisation central to the school’s ethos.
- Get the cleaners on your side: ensure they are familiar with what can be recycled, and that they are emptying them into the correct external bins.
- Successful school waste initiatives are supported by the whole school and depend on everyone being aware and getting involved.

10. Create ripples beyond the school gate

- Be vocal about the message: pass information to parents and carers, and show them what the school is doing and what impact it is having
- Contact local community and environmental groups and draw on their knowledge in school initiatives. They may be able to help with composting, school gardens, or have ideas for how to use waste materials. Wiltshire Wildlife Trust and Avon wildlife Trust are particularly helpful and Cotswold Wardens will come into schools in Bristol area. The RHS have a great site and lots of advice for schools.
- Working with school’s wider community can provide pupils with an opportunity to bring positive change to a much wider group of people. Important life skills can be gained and the school can develop its local, and perhaps even national, reputation.

Top tips for school food and catering services

Food waste production can be reduced by as much as 20% in many schools, often with little or no capital investment. There are many steps we can take, both small and large, that can have a positive and significant effect on the sustainability of the school food system. Many of these will also have a positive effect on school budgets, as in many cases efficiency and sustainability can be pursued at the same time.

- 1. If you only do one thing to make your school food service more sustainable and reduce carbon emissions, align your menus with seasonal production and harvesting cycles.**
 - Seasonal and unprocessed/lightly processed food tends to be cheaper and has lower environmental production costs than non-seasonal food. Look at the School Food Trust's seasonality chart www.schoolfoodtrust.org.uk/resources/seasonalitychart
 - Work with your suppliers to identify seasonal cost trends and take advantage of low season prices for meat and poultry.
- 2. Use the power of aggregated and collaborative purchasing to ensure that sustainable options are provided**
 - Encourage local/regional food suppliers to bid for your business
 - Work with suppliers to increase the proportion of local/regional produce they offer and reduce the number of deliveries you receive.
 - Work with other local schools to explore joint purchasing and delivery arrangements and/or buy into local authority contracts.
 - The education sector in England spends an estimate £1bn on the school food sector every year. To take advantage of this bulk buying power the government has set up the FdFS (Food Delivery for Schools) programme. The programme aims to create better value for money in the school food sector by establishing framework agreements in food commodities, school catering services and school food equipment.
 - The School Food Trust has written a quick guide to tendering your school catering service. This supports schools who are interested in using the FdFS school catering service framework agreement. To access this guide please visit www.schoolfoodtrust.org.uk/procurement
- 3. Consider increasing the proportion of certified/assured products and sustainably-sourced fish in your menu and vegan/vegetarian options.**
 - Avoid using over exploited fish stocks. See www.fishonline.org for a list of which fish to use or avoid.
 - Ask food suppliers to provide pricing information for certified products to give your school flexibility and choice.
- 4. Seek opportunities to reduce food and packaging waste, and where waste is unavoidable, try to ensure it is recycled or reused rather than just dumped.**
 - Get free online tools and guidance from WRAP by signing up to tackle waste and share good practice at www.wrap.org.uk/hospitality
 - Regularly review food waste arising from unused or spoilt kitchen stock or uneaten food and take steps to reduce this, e.g. better menu planning to avoid over ordering and avoiding the use of unpopular options
 - Segregate your waste into categories which can be recycled. Mixed waste tends to go to landfill.
 - Waste products such as cooking oil, cardboard and aluminium all have a commercial value. You should be able to find collectors who will take this from you for minimal or no cost.
 - No single use plastic used, including bottles. Also no single use plates, bowls, cutlery, cups, coffee cups, etc
- 5. Promote more energy and water efficient practices in your school**
 - When buying new kitchen equipment, choose products with the highest energy efficiency rating, NB fridges and freezers
 - Fit low cost energy and water efficient devices to existing equipment, including fridges and freezers.
 - Simple changes to kitchen behaviour can be even more effective than new technology. Put up posters with top tips and reminders.

- Good maintenance and the appropriate use and positioning of equipment are vital. A split door seal on an oven can lose 20% of the oven's heat.
- 6. Develop an environmental management system (EMS) and improve your environment efficiency**
- This will help you to implement and monitor your progress in a systematic way and will provide your pupils with evidence of positive change. The Eco-Schools scheme is an example of a simple EMS designed for schools.
 - Establish a school food policy statement covering food and catering services. This is key to a successful EMS.
 - Review the use of chemicals in your kitchens/dining rooms, use environmentally benign cleaning products and find opportunities to reduce packaging waste by using refillable containers.
- 7. Drink tap water**
- Tap water in the UK is clean, cheap and comes with no packaging problems.
 - Put in place bottle refill stations in schools.
- 8. Try growing food to help pupils understand where foods come from**
- Visit growingschools.org.uk
 - Involve pupils in the decision-making process - it can help to make the whole experience a more positive one for all concerned.
 - An area for growing vegetables can be created in a garden of any size, from a large sunny vegetable plot, to a few containers on a patio. It is best to choose vegetables that are easy to grow, reliable and quick to crop. Ideally they should be ones that children like to eat!
 - Explore a range of curriculum subjects, including researching which vegetables grow and when to plant and harvest (ICT); investigating soil conditions and microclimate (geography); crop rotation and pest and disease control (science) and building pest barriers and traps (design technology).
 - Food growing can teach pupils about the lifecycles of the vegetables, the creatures attracted to the garden and about soil and nutrition. A vegetable plot can raise pupils' awareness of the seasonal nature of food and its immense variety.
- 9. Take pupils to visit a farm**
- Think about your visit carefully and make your sure you have clear learning objectives. Visit the Learning Outside the Classroom website.
 - Visit www.growingschools.org.uk and www.thinkfoodandfarming.org.uk to discover local farms to visit (including City Farms – great one in Bristol) and for further teaching resources.

Top Tips to develop the global dimension in schools

Sustainable development isn't just about the environment – and it isn't something we can achieve in isolation. The air we breathe, the food we eat and the clothes we wear link us to people, environments and economies all over the world. The decisions we make on a daily basis have a global impact. Schools, through their curriculum, campus and community, can help pupils to make sense of the complexity of our world and their place in it.

1. Look for the global dimension in how your school operates

- Involve the whole school community in thinking about a school vision and aims which reflect the implications of living in a complex, interconnected world.
- Designate a specific member of staff to develop the global dimension across the school.
- Consider each subject's contribution to understanding the global dimension.
- Celebrate small steps along the way to reinforce the importance you place on these issues.

2. Find out what impact your school's buying has on other countries

- Purchasing choices made by schools can make a real difference. Debating fairly traded products, ethical banking, green energy, local sourcing, waste disposal options and other

management decision provides a useful way for staff and pupils to reflect on global issues, and how the school can help address them.

- Use these decisions as a way to involve parents, governors and the wider community in the work you are doing.
 - Explore the impact on other countries in terms of where recycling ends up, pollution in other countries due to products we buy, environment destruction in other countries due to what we buy (palm oil), treatment of workers in other countries.
- 3. Use global teaching resources in delivering the curriculum**
- Search for books, films, posters and websites with a global dimension at www.globaldimensions.org.uk. From climate change to poverty, water to fair trade, this website is a guide to resources for all age groups and subjects.
- 4. Find out about support from other organisations**
- Development Education Centres, non-governmental organisations, local authorities and others can support you with resources, newsletters, speakers, professional development and projects.
- 5. Look at the work of UNICEF and UN bodies**
- The UN Convention on the Rights of the Child refers to responsibilities of children, in particular to respect the rights of others. This pairing of rights and responsibilities for all children across the world is a valuable subject for young people to explore and to understand their role and global citizens.
 - The 17 sustainable development goals for the UN offer a strong framework for curriculum development and goals for the school as a whole.
- 6. Consider linking your school to another operating in a different culture**
- Take advantage of the advice and options available for international linking. A partnership link with another school can help pupils to appreciate global connections and interdependence as well as find out about similarities and differences between places and cultures.
 - Consider linking with another school in England or even in your local area. By linking with school operating in a different context, pupils can start to examine their own values and attitudes and value diversity.
 - Try to make sure your school link doesn't reinforce a perception of the global as "out there" and "far away".
- 7. Make time for professional development and reflection**
- Plan continuing professional development for all staff. It takes time to develop a global perspective – a view of the world that makes connections between diverse issues, people and places.
 - Provide spaces and opportunities for reflective and critical thinking for the whole school community including governors.
 - Support teachers to consider their own perceptions and biases.
- 8. Promote optimism and action**
- A pessimistic view can lead to disempowerment. Greater understanding, especially when it is accompanied by action, can help to change this, leading to optimism and a wish to contribute to positive change in the local/global community.

Top tips for schools to engage with biodiversity

“Every child...born into this world has an innate pleasure...delight....interest and curiosity in the natural world.” Sir David Attenborough

What is biodiversity and why is it so important?

Biodiversity is life. Scientists use the word to describe the links and variety between all living things on the planet- including humans, nature, wildlife, plants and animals. It's all inter-connected. We all

rely on biodiversity for our survival, because of the vast number of goods and services our planet provides for us.

Economic growth and social progress can neglect the essential need to consider and care for the environment. Yet the conservation and sustainable use of biodiversity is critical for both the global economy and for the basic resources needed to support our planet's growing population. By engaging with biodiversity, schools can improve their own performance, while equipping pupils with the skills, understanding and confidence to adapt to these changes and to succeed in the future. At the same time, they will also be benefiting biodiversity - in the school grounds, local community and all around the world.

1. Notice that nature and wildlife are all around you

- Go outside the classroom and look around what wildlife, nature, plants and animals are there. You don't need to be an expert in ecology.
- Giving children five minutes each day outdoors to notice environmental changes and animal behaviour can add vital context and interest to lessons.
- Beyond the immediate school buildings and grounds, local communities also offer many opportunities for learning about biodiversity, including parks and canals. Further afield, a variety of biodiversity and natural environment organisations offer good quality, safe learning experiences.
- Consider becoming a forest school.

2. Use biodiversity across all curricula and ages

- Biodiversity fits well with science and geography curricula, and with a little imagination it can easily link into all subjects.
- Monitoring and recording biodiversity provides a wealth of data which can be used back in the classroom to support numeracy lessons.
- Looking at the seasons and animal migration can help introduce ideas about changes over time.
- For centuries, nature has provided inspiration for poetry, art and literature, with many plants/animals having great cultural symbolism.
- At secondary level, biodiversity can help develop an ecological thinking approach (systems thinking and how everything is connected).
- This can be expanded by looking at the chains within ecosystems – for example, the impact of natural processes on human well-being, in relation to food or water, can help pupils to understand the connections and inter-relationship between species, habitats and people.

3. Create places for wildlife in your school grounds

- Creating a place for wildlife in your school grounds has never been easier. Nature can be nurtured and encouraged in schools for children to enjoy and explore e.g. seed planting, creating mini-beast habitats, feeding wildlife homes and water habitats. Many organisations offer support to schools on wildlife gardening – RHS website has considerable resources.

4. Understand how all of life is interconnected

- Biodiversity links into local and global institutions and issues. For instance, human rights and responsibilities can be connected to the way we think about nature, or animal rights – at the same time developing critical thinking and communication skills.
- Climate change and poverty can also be linked to biodiversity. Taking this approach towards biodiversity is valuable in helping young people develop and explore their own rights and responsibilities in caring for themselves, others, and the environment.

5. Build for a biodiverse future

- It's not just people who get shelter and protection from buildings – animals, insects and plants to too. It can be simple to include measures to benefit biodiversity and the school community, whether you're designing and constructing new buildings or adapting existing ones. For instance, having a "green roof" on your school provides a home for plants and

bugs. These then provide vital food for other wildlife that can also use school buildings to nest and live (especially if specific spaces are built-in), including rare and threatened species of bats and birds. A green roof can also provide insulation and reduce energy costs.

- A green roof might not be possible but there are other measures that you can take in and around your buildings. For example, why not have hanging baskets filled with wild flowers to attract bees or bird boxes for nesting?
- Have a look at buglife website and plantlife websites and SEEd :www.se-ed.org.uk

6. Recognise the benefits to pupils, teachers and schools

- Contacts with nature and natural play have a range of positive learning and health benefits. These include reducing the effects of childhood obesity and improving mental health and emotional well-being. For instance, findings suggest improved engagement with learning and a reduction in instances of attention deficit hyperactive disorder (ADHD) amongst pupils following contact with nature.