

Sustainability in Schools



How to deliver a
'Whole-School Approach'



Chartwells
So much more than fantastic food



Foreword



Charles Brown
Managing Director, Chartwells

Each week, our amazing frontline teams serve more than a million meals to pupils across 2,000 schools in the UK. Our teams are motivated by the common purpose of fuelling pupils' learning, which is not limited solely to the food we proudly serve them, but, crucially, how we engage and educate their minds.

Schools educate the leaders of tomorrow. While core subjects are crucial to learning and development, schools also provide a fantastic, controlled environment to champion sustainability and set a precedent for educating pupils about how to be a responsible citizen.

Through our award-winning Beyond the Chartwells Kitchen programme, we reach hundreds of thousands of pupils every year with engaging workshops covering a range of topics, including sustainability. We get great engagement on this subject from pupils, many of which are driving the green agenda.



Their passion, commitment, and understanding of sustainability never ceases to impress me, and there is certainly much cause for optimism about the future.

As part of Compass UK & Ireland, Chartwells is committed to achieving net-zero emissions by 2030. It's a goal that our business lives and breathes every day and drives our decision making. In the education sector our primary focuses for achieving this are reducing food waste, reducing carbon from menus, and educating pupils.

We've touched on all these elements within this report, but we also felt it was important to broaden the topic range and look holistically at sustainability within the wider school eco-system, digging into other topics, such as water, energy, and waste, to name a few.

While there are differences between the Independent and State education sectors, there are also great

similarities. We have written this report with the hope that it is just as relevant to a Bursar at an Independent school, as a catering lead within a Local Authority, or a Headteacher at a secondary school.

While we have put ambitious targets in place, and are implementing plans to achieve them, we're poignantly aware that there is a long journey ahead of us as we strive towards our Net-Zero target. We simply can't do this on our own, so we hope this report acts as the catalyst for further conversations and engagement from our valued clients, and the wider industry, about how we can collectively share best practice and work collaboratively.

Introduction:

Sustainability soars up the agenda

Schools have a key role to play in putting sustainability at the heart of children's education – and their lives.

When the Department for Education (DfE) published its sustainability and climate change strategy in April 2022 its vision was for the UK to become “the world-leading education sector in sustainability and climate change by 2030”.

It's a bold ambition but one that reflects a growing desire among school leaders and their stakeholders, including caterers, to put sustainability at the heart of the school environment.

Sustainability has risen up the agenda in schools in recent years often fuelled by interest (and pressure) from increasingly eco-aware pupils.

Across a range of interrelated issues – from energy and water right through to waste, packaging and food – schools are taking steps to become more sustainable in their day-to-day operations whilst embedding sustainability within the curriculum.

In so doing they stand to unlock synergies across different focus areas but must also navigate the potential complexities of unintended consequences from their actions – for example where a positive change in menu leads to a spike in food waste – and work to minimise the trade-offs between different sustainability ambitions.

For all the good work going on in primary and secondary settings across the state-run and independent sector, it's clear that barriers exist to schools devising and executing holistic, cross-cutting sustainability strategies. These include budgetary pressures and funding structures; a lack of internal expertise and knowledge; and a lack of autonomy over operational and supply chain dynamics. Questions often arise too over who is best placed to lead a drive for sustainability and how to engage key stakeholders.





External experts looking to help schools embed more sustainable practices often report having trouble finding the right contact or moving beyond the “gatekeeper” who answers the phone and responds to emails. “I’ve gone to schools with opportunities to get £2–3k in funding to support sustainability initiatives and have had zero responses,” says Chris Livemore, founder of Ibex Earth, a not-for-profit consultancy based in London. Because schools receive so many requests to join green initiatives or buy environmental goods “they are inundated and [risk missing out] on

great opportunities to deliver positive environmental impacts across their school”, says Livemore.

Embedding sustainability

For many schools the end goal is to have “sustainability embedded in everything we do”, as is the case at Brighton College, according to its head of energy and sustainability Anastasia Sousanoglou. From operations to learning “sustainability is a theme that runs across everything”, she says.

Embedding sustainability into a school’s culture does not happen overnight. In order to adopt an whole-school approach, school leaders need to go through a process of change that challenges conventional ways of thinking and working. Myles Bremner, CEO of independent food policy and practice consultancy Bremner Consulting, summarises the process as:

1.

Embedding a vision and a story of what an all-school approach to sustainability looks like and why it matters.

2.

Putting in place policies and plans to achieve that vision.

3.

Enabling those policies and plans to be delivered through good administration and appropriate funding and support guidance.

4.

Ensuring transparent, positive monitoring and accountability mechanisms are in place to deliver the improvements schools want to see.

Barriers and challenges

Where ambition doesn't translate into action Bremner suggests there are often two barriers schools face. "It's a combination of will and skill," he says. The will to do things better risks being undermined by "the plethora of different demands placed on schools that can consume the minds of school leaders and school governing bodies" to the point where

other issues like school food provision and environmental sustainability get pushed down the list of priorities.

Bremner says the other main barrier relates to skills. "Even if schools do have the will, do they have the resources, the capacity and the competence to be able to deliver a whole-school approach?"





"We've got a target as a council to be carbon neutral by 2030. This underpins everything that we do."

John Figgins
Head of Catering Services, West Sussex County Council

School stakeholders

One factor in schools' favour is that key external stakeholders – like the DfE through its new strategy – are increasingly signed up to an agenda that puts sustainability at the heart of the school.

At a local level too, councils are setting sustainability targets which will require them to reduce emissions from the schools within their jurisdiction. "We've got a target as a council to be a carbon neutral organisation by 2030," says John Figgins, head of catering services

at West Sussex County Council.

"This underpins everything that we do in terms of our contract planning, decisions, operations and reporting: everything here has an underlying focus on sustainability and how that plays into the council's aspiration."

Sousanoglou says the list of stakeholders she needs to engage with directly in her role at Brighton College is broad: from a core group of teaching staff that is made up of the headmaster, deputy headmasters/ headmistresses and senior teachers to staff covering key functions like

finance and operations. "Our pupils are also a big part of our stakeholder group," she adds as is "the wider pupil body" that includes parents.

Schools will need all of these stakeholders pulling in the same direction if they are to successfully embed sustainability within the culture of the institution. But it can be done. Over the course of the next six chapters we detail the steps schools can take to address key sustainability challenges and unlock opportunities across a number of subject areas: energy, water, waste, packaging, menu

development and, crucially, education.

By focusing on these six distinct – but interrelated – sustainability issues, the report highlights the challenges schools face in moving towards a whole-school approach. And it shows how these challenges can be overcome so that the education sector plays its part in driving positive societal change by putting sustainability at the very heart of the school.

Chapter one:

Energy

Schools are facing 'apocalyptic' increases in energy prices but there are simple interventions that can save money and cut carbon.

In 2019 schools were spending some £630m a year on energy, according to the Department for Education (DfE). Largely old, draughty buildings and 'far from exacting' efficiency or environmental standards in newer builds was draining coffers. Fast forward to 2023 and the situation has worsened –dramatically so.

School leaders have faced reported "apocalyptic" hikes in energy costs of 500% or more and many are desperately wondering how to fill black holes in their budgets².

As one headteacher tweeted in 2022: "My school's electricity bill is going up from £55,000 this (academic) year to an estimated £150,000 next year. That's £100,000 that should be going on children's education." This hike followed a "rigorous re-tendering process" with governors. "We are also exploring energy-saving measures, but these involve additional upfront costs."

Concerns over cost price inflation are ones catering companies can empathise with. The situation is unsustainable but the current energy crunch is forcing schools to look at where they can cut back on their usage.





Motivation

Money is the key driver for many sustainability interventions in schools and energy is an area where significant savings are possible. Schools don't always have the easiest of jobs though: retrofitting programmes to improve energy efficiency can be expensive, while there were reports that even relatively new builds have been left with token numbers of solar panels and

lack 100% LED lighting. "Our energy costs have increased 50%," explains Kate Fry, school business manager at Invicta Primary School & Children's Centre in London.

Thankfully, there are lots of low-cost energy saving measures schools can take to help mitigate the impact of rising prices. The starting point is a 'walk-around' or energy audit to identify both where energy is being

used and 'easy win' opportunities to reduce it. This doesn't have to be extensive or involve expensive consultants and there are plenty of crib sheets publicly available.

Energy Sparks provides a free online energy analysis tool and energy education programme specifically designed to help schools reduce their electricity and gas usage through the analysis of smart meter data.

The charity works with over 400 schools most of which save 10% in their first year: based on an average two form entry primary school that equates to £2,500 and 8 tonnes of CO₂ saved⁶.

Smart school metering

Energy Sparks is working with the government, including the Department for Education and the new Department for Energy Security and net-zero, to trial the delivery of energy management systems in schools; these will “provide schools with real-time information about their energy usage, presented within a user-friendly online portal”, says DfE.

Schools are certainly demanding better data on their energy usage which in turn can help determine where to invest and what the likely returns will be. Sousanoglou at Brighton College says “visibility” at building and activity level could be really important which is why the college is in the process of sub-metering across the estate.

Electrical sub-metering involves the installation of additional meters that offer more granular consumption information. This information can help reduce wastage, flag any issues with equipment or systems and allow



benchmarking of different sites; the data can also help support return on investment decisions.

The government appears acutely aware of the value in data to help schools make better decisions when it comes to their energy use and efforts to improve efficiency and decarbonise. (Whether it's providing enough support to do so is moot.) In March 2023, £409m was granted through the public sector decarbonisation scheme (a £2.4bn scheme over three phases) to help public sector buildings such as schools drive down their carbon emissions. A number of schools are installing solar panels, improving insulation and switching to LED lighting⁵.



Hot stuff

How to decarbonise heat is going to be a hot topic in the coming months and years. The government's building energy efficiency survey indicates that approximately 60% of energy use in education settings is associated with high carbon intensity fuels such as natural gas, coal and oil¹.

Ten pilots to test 'energy pods' as a way of providing off-site manufactured, low-carbon, heating solutions on the existing school and college estate are being launched. Upgraded heating systems, powered by cleaner, cheaper, renewable energy are a priority. The government also wants to test the feasibility of replacing school boilers with ground or air source heat solutions.

David Powlesland, associate director at the Carbon Trust says the carbon intensity of electricity is on a downward trend, which is encouraging – but heat isn't coming down. "It's down to local authorities and schools to change the technology and it has to be heat pumps," he explains.

Comberton Village College, near Cambridge, recently underwent a £3.1m revamp in what is reported to be the largest ground source heat pump network at a UK secondary school⁶. It should reduce its carbon emissions by 70% and save it thousands of pounds a year on fuel bills, Cambridgeshire County Council said.

According to the Energy Saving Trust heat pumps are more efficient than other heating systems because the amount of heat they produce is more than the amount of electricity they use. However, this isn't a 'plug and play' technology, says Powlesland. "You have to look at that whole building approach to design the optimal solution," he adds.

High temperature heat pump arrangements exist now, and solutions are available for all schools. However, to optimise heat pumps, reducing temperatures and minimising building heat loss is important for a whole building approach. Optimising a heat pump system will include considerations of heat emitters, glazing, building fabric, room orientation, insulation and occupancy levels. Radiators may have to be replaced or augmented in order to maximise the efficiency of the pump.





Can't stand the heat

School catering operations both consume and waste large amounts of energy, according to Energy Sparks. In some kitchens, as little as 40% of the energy consumed is used for the preparation and storage of food; much of the wasted energy is dispersed into the kitchen as heat⁷. This is certainly an area the catering industry needs to work on and effective energy management in catering can provide substantial savings, as well as improving working conditions in the kitchen. This starts with a simple audit to help create an action plan. It doesn't have to be complicated, covering usage times, switch on and off times, use of lids on saucepans and the cycles used for dishwashers. Caterers have to be involved in this.

At the 180 schools catered for by Chartwells under the control of West Sussex County Council the kitchens have a relatively light energy footprint: meals arrive

pre-prepared from Chartwells Cuisine Centre, are refrigerated, steam cooked under microwave power, and served. There are no gas burners running all morning, or hot holding of food on site, for example.

Energy equation

Technology is only one part of the energy efficiency equation. Behaviour change is also crucial and is often the starting point for many schools given that there are free or low-cost interventions available. Energy Sparks has identified 15 simple behaviour changes – from campaigns on heat and electricity to the creation of holiday switch off lists⁸.

Damers First School in Dorchester, Dorset, has been working with the charity and has seen some impressive reductions through the easiest of interventions. Turning the heating on slightly later and switching it off slightly earlier has cut bills by 10%. The data on



energy is invaluable for the school's efforts on carbon reduction, but also financially.

And there's another benefit: engagement. The children can see what energy use is like, when it goes up or down, and what impact their efforts and other changes make. Damers has run power down days, with the savings being used to run a project or trip that comes from ideas submitted by children. It's important the children know where their savings are spent, suggests Edd Moore, primary teacher and eco-coordinator at the 380-pupil school, because this behaviour impacts how they act at home too.


Pester power

Work by the University of Leeds for British Gas reinforces this anecdotal evidence. The study involving nine schools showed that weaving the energy information and campaigns through the school curriculum had a powerful impact. "To get [older] students to engage more meaningfully in CSR is by not "ghettoising it into a single module or topic," explains Matthew Davis who led the research.


Many energy suppliers have lesson plans that schools can tap into, he adds, with maths challenges involving energy data for example increasing engagement. "Children have an important role to play in helping to educate and inform their parents and wider family about how to save energy," he says. "They are also well placed to drive changes in their teachers' energy behaviours at school."

His research, in 2017, found that schools using energy-saving technology and an accompanying engagement programme (a socio-technical approach) saved an average of more than £2,160 (18,460kWh) on average in the 12 months following their technology installations⁹. It's a safe bet the savings would be far greater at today's energy prices.


Top tips for energy sustainability




If you only do one thing, educate the staff and children to turn off energy-using appliances when not in use (including power downs during holidays)



Conduct an energy audit to help understand where and how you are using energy; smart metering is expanding which will help target hot spots



Focus on reduction first before looking at renewable tariffs or installations



Share information with pupils and school staff; encourage energy saving competitions and use energy data as part of lessons (e.g. in maths)

“Heat pumps are not a ‘plug and play’ technology. You have to look at that whole building approach to design the optimal solution.”

David Lowlesland
Associate Director, Carbon Trust



£90,000

energy spend per
year by the average
secondary school³



1°C – Reducing the temperature in a building by 1°C can save around 10% of your annual heating bill². Operating the heating system for an hour less each day can save a similar amount.

Chapter two:

Water

From good housekeeping to behaviour change initiatives schools can take some simple steps to improve the efficiency of their water use.

Just like businesses and households, schools are vulnerable to the twin threats posed by flooding and drought – the frequency and intensity of which have already begun to increase and are expected to rise further under future climate change scenarios.

Drought experienced across much of the UK last summer led to restrictions on water use being imposed by a number of water companies, forcing private and public sector organisations, as well as households, to mitigate their use of scarce supplies.

On the other side of the coin, nearly half of UK schools (10,710) are at risk of flooding, according to the Department for Education (DfE)¹, a figure which is

expected to increase to at least 13,662 by the 2050s, or 16,394 in the worst-case scenario.

The DfE sets out plans to focus on flood resilience, sustainable urban drainage, resilience to drought and efficiency within the water plank of its new sustainability and climate change strategy.

It is this last focus area over which schools can wield the greatest direct influence. As is the case with energy, water efficiency measures – when successfully implemented – can not only deliver sustainability wins by reducing water usage, they can deliver cost savings too.



So what kind of water efficiency measures should schools be taking? These can generally be divided into three sub-categories: good housekeeping, behaviour change and water capture and reuse.



Fixing faults

Good housekeeping starts with simple steps such as fixing leaks and maintaining equipment which might otherwise result in wasted water. Leaky taps and pipes waste 2,954 million litres of water every day in the UK, according to Waterscan[®]. Regular checking for faulty valves

in toilets or leaky taps or pipes can pick up problems that when quickly addressed can save water from being unnecessarily wasted.

Further savings can be achieved by changing or adapting equipment to make it as efficient as possible. Toilets, for example, can be fitted with dual flush controls which conserve water

by offering a low volume flush for liquids and a full volume flush for solids. Showers, meanwhile, can be fitted with timers which regulate the amount of time for which the water is running.

"Children have a tendency to forget things like turning off the tap so we try to automate things as much as possible by, for example, using

sensors," says Brighton College's Sousanoglou. She adds that new buildings within the college's estate have their own water efficiency features installed as part of the construction, including grey water recycling for toilet flushing.

Changing behaviours

Of course, the building stock and equipment across much of the UK school estate is old and so replacing equipment or retrofitting water saving features may not always be possible given budgetary constraints. This is where behaviour change can play a critical role. Encouraging pupils and staff to use water more responsibly via engagement and awareness initiatives can help deliver savings. These might take the form of a presentation on water efficiency at a school assembly or displaying posters in the vicinity of taps, toilets and showers reminding users to turn off the water once they have finished.

The kitchen is another area where water usage can often be unnecessarily high. Here, good water efficiency behaviours include asking chefs not to leave taps running constantly when preparing vegetables or cleaning down work stations; and ensuring dishwasher loads are full and set to the most efficient rinse setting.



Usage data

Brighton College is working towards achieving greater visibility over its water usage, which in turn will allow it to identify hotspots that can be targeted for water efficiency or behaviour change measures.

Schools, like businesses, are now free to choose which company they want to supply their water. Brighton College is in the process of changing its water supplier with the aim "to move to a supplier that can help us a bit more with things like smart meters, better data visibility and better advice around what we can do to reduce our usage", according to Sousanoglou.

The rollout of smart metering in the water sector is not as developed as it is in energy however experts believe it will increasingly become a critical tool for organisations looking to monitor their water usage and target opportunities for reduction at a more granular level.

Top tips for water sustainability



Have a process in place for identifying leaks and faults and fixing them in a timely manner



Run frequent behaviour change initiatives both for pupils and staff, including chefs



Find innovative ways to capture and reuse water such as grey water recycling or water butts for rainwater



Work with your supplier to get visibility over your water use and hotspots so you can target reduction efforts more effectively.

"Children have a tendency to forget things like turning off the tap so we try to automate things as much as possible by, for example, using sensors."

Anastasia Sousanoglou

Head of Energy and Sustainability, Brighton College

2,954 million litres



the volume of water wasted every day
in the UK due to leaky taps and pipes





Butts and boreholes

Schools who want to go the extra yard in putting water at the forefront of a cross-cutting sustainability strategy are looking at opportunities for water capture and reuse. Installing water butts around the school premises can allow schools to capture and store rainwater and put it to use in activities such as vegetable growing. At Mandeville School in Hackney, an

empty caretaker's cottage in the grounds has been converted into the Hackney School of Food by an alliance of organisations including the LEAP Federation, Chefs in Schools and the architects Surman Weston. To teach children about water conservation, and improve the sustainability credentials of the existing building, gutters and downpipes were replaced and re-routed into a large agricultural water storage container. As a safety

measure, a slatted timber lid was added to the storage tank to ensure it's only accessible with assistance from a supervising member of staff. When tending to the plants in the school's vegetable garden, children fill up their watering cans with the collected rainwater.

Brighton College has also found a novel way to use non-potable water. The college has a borehole which is

used in the operation of a ground source heat pump that provides heating and cooling to three of its buildings. Sousanoglou explains that a small amount of the borehole's water allowance can be used for activities that don't require clean, potable water such as irrigation thus reducing reliance on water from the main supply.

Chapter three:

Food waste

Reducing food waste can dramatically reduce greenhouse gases and caterers are working closely with schools to adopt systems and menus that allow them to do just that.

The UK wastes around 9.5 million tonnes of food waste every year; 70% of it was intended to be eaten ('avoidable' food waste) and the other 30% was inedible, like peelings and shells ('unavoidable' food waste). This waste has a value of over £19bn and is associated with 36 million tonnes of greenhouse gas (GHG) emissions¹².

The UK has committed to halve per capita food waste by 2030 as part of the UN sustainable development goals, and schools can play their part. Kitchens and lunch halls are two of the three "hotspots" for waste in schools, says Steve Denton from Suez, a recycling and recovery company that manages waste for schools and businesses.

So how much food do schools waste and what can be done about it?

80,000 tonnes

The most widely cited research on this topic was completed by Wrap, a resources charity, back in 2011 in England¹³. This found that in the course of the school year (40 weeks) ...

... **primary schools generated 55,408 tonnes** of food waste, or 72g per pupil per day

... **secondary schools generated 24,974 tonnes** of food waste, or 42g per pupil, per day

= 80,382 tonnes in total.



Fruit, vegetables and 'mixed' foods (pizza, cottage pie, spaghetti bolognese etc) were the dominant items wasted for both primary and secondary schools. Desserts were the least wasted. More recent research in France showed that cooked vegetables were the most wasted food category (between 66% and 83%) during school lunch, while raw vegetables were wasted more than main dishes, starchy products, dairy, fruit and desserts¹⁴. As researchers writing on the topic for the British Food Journal in 2019 noted¹⁵: "Failing to consume a nutrition-balanced diet is detrimental for children and costly to society." The total cost of this school food waste in England was estimated to be £250m.

There were however "very few respondents" to Wrap's research that thought their school throws away a lot of food. And yet ...



78%

of food waste in
primary schools is
avoidable



77%

of food waste in
secondary schools
is avoidable



62%

of food waste
in households is
avoidable



Data crunch

Reducing avoidable food waste is a priority for school catering companies. "We are educating those we work with in schools," explains Camilla Howard, contract director for United Learning at Chartwells, "and we have to walk them through what can be done and where the waste is arising".

Data has come to the fore. Suez for example has a system through which food waste collection data is fed back to schools so they can see the amount generated and how the waste is being treated. Some caterers also voluntarily collect and publish food

waste data through Wrap's food waste reduction roadmap.

The UK government has recently consulted on mandatory reporting of food waste data, as well as proposed changes to public sector food and catering policy, including the Government Buying Standards for Food and Catering Services (GBSF). A new 'food waste prevention' standard would require public sector caterers to provide evidence of a 'Target, Measure, Act' (TMA) approach to measuring and minimising the impacts of food waste. "We would like to better understand what is being bought, served,

and wasted so that we can monitor the environmental, economic, and social impacts of public sector food and catering," the government notes.

Wrap discovered that using external caterers was associated with a "strong and significant" reduction in primary school food waste, but was not statistically significant for secondary schools. "We are doing everything we can at the front end," Howard explains, adding that two thirds of the food waste in the schools she works with is plate waste - the avoidable portion. "This is a shared challenge."



Big savings

Those that are working to lower their food waste are using a number of innovative but relatively low cost approaches. These include portion control, menu planning and meals cooked to order, and improving the dining experience.

Invicta Primary School & Children's Centre is among those that ensures dinner orders are with caterers by mid-morning so they can cook accurately, thereby reducing waste. Unserved food is a cost to both caterer and school. A nervous period often ensues after a new catering company takes a contract. Invicta executive headteacher Vicki Cuff says Chartwells have "really kept an eye on" what food is going down well with the students and what isn't.

Other schools have run questionnaires for the children, and worked closely with their catering suppliers to ensure meals meet nutritional requirements but will also be enjoyed. "If you don't record your plate waste you'll never know whether menus really are working," says Helen Burge, deputy chief operations officer at the Priory Learning Trust, an educational charity overseeing eight schools based in Somerset, and co-chair of the 200-strong UK Schools Sustainability Network operations group.

Time pressures came up as a key challenge in a number of discussions. Canteens may have hundreds of children to feed in a short period of time so valuable "discussions over the

hot plate" can be difficult to incorporate into busy lunchtime schedules. These discussions are important to understand how much children want, their likes and dislikes, and build a relationship between staff and students.

Burge says it's so important to create an environment children want to be in. Efficient service helps and the role of lunchtime supervisors should not be underestimated. Sousanoglu at Brighton College says their approach to plate waste has been "soft", encouraging students to say when they don't like something before it's put on their plate or enabling them to come back for seconds rather than take more than they are able to eat.



Digesting food waste

However impressive the interventions there will still be some waste generated (hopefully most of it unavoidable). For the edible leftovers, schools can work with redistribution charities to find an end market. For everything else there are two options: general waste or, preferably, separated out for composting or used to produce energy via anaerobic digestion (AD). Not all schools have access to such collection services; however the government has a target for near elimination of biodegradable waste from landfill by 2028 and intends to introduce mandatory separate collections for food waste.

Treating waste through composting or AD can save significant amounts of greenhouse gas emissions. Landfilled waste produces greenhouse gases – in particular methane, a particularly powerful gas – over a long period of time and these are difficult to manage. For every tonne of food and drink waste¹⁶:



Landfilled
= 627kgCO₂e



Combusted
= 21kgCO₂e



Composted
= 9kgCO₂e



Anaerobically digested
= 9kgCO₂e

"If you don't record your plate waste you'll never know whether menus really are working."

Helen Burge
Deputy Chief Operations Officer,
the Priory Learning Trust



Separating food waste from other general rubbish for composting or AD is also cheaper than it being discarded with black bin waste: general waste per 100kg costs around £17 to dispose of while food waste separated out is £11, according to Suez.

Separation also provides clear visibility on how much is being wasted which can -itself - drive changes in behaviour and waste reduction. Providing the

information to children and introducing challenges to cut food waste can help.

Indeed, academic research shows that children have a clear understanding of the consequences of food waste for individuals, society, and the environment. Focus group discussions at primary schools conducted by the University of Durham and Brunel University found children "displayed negative

emotions concerning food waste and responded positively to the possibility of food recycling"¹⁵. What was really interesting, too, is that the children "placed a heavy emphasis on self-regulation, playing an active role in addressing food waste in school". In other words, children can play an important role in helping shape food waste solutions in schools.

Top tips for waste sustainability



Work with your caterer to identify dishes or days when higher levels of food waste are being generated



Check with your waste contractor about the opportunity to have separate collections of food waste – it can save money and reduce your carbon footprint significantly



Clear labels on bins ensure that students and staff know what to put where. Classrooms can also have food waste bins if children are eating snacks or fruit there.



Don't underestimate the role – and desire – among children to actively contribute to food waste reduction efforts

	Primary	Secondary
Vegetables	25.3%	18.1%
Fruit	23.7%	18.3%
Mixed (non-sandwich)	16.7%	19.2%
Bakery	8.3%	9.3%
Dried Foods	7.4%	8.1%
Meat & Fish	5.6%	4.5%
Drinks	5.6%	9.7%
Salads	2.7%	1.8%
Sandwiches	2.3%	6.9%
Dairy	1.4%	1.8%
Confectionary & Snacks	0.5%	1.3%
Condiments, sauces, herbs	0.4%	0.7%
Desserts	0.2%	0.5%

What happens to food waste?

Anaerobic digestion

Did you know? UK food waste has a value of over £19bn and is associated with 36 million tonnes of greenhouse gas emissions¹²



Collection

Food waste is collected separately and delivered to an anaerobic digestion facility's 'reception hall'.



Pre-treatment

Waste is pre-treated to remove contaminants such as packaging and diluted with water. Heating to 70C for one hour kills any pathogens.



Digestion

Pasteurised waste is fed into an anaerobic digester. Bacteria break down the waste, converting it into biogas and a residue called digestate.



Energy

Gas piped from the digester is used to generate electricity and heat.



Digestate

Water is removed from the digestate which is used as a biofertiliser on soils.



Chapter four:

Packaging

Plastic remains an issue on everyone's lips but schools must prioritise reduction of all single-use packaging and look to engage staff and students with reusable systems.

When the BBC's Blue Planet documentary aired in December 2017 few could have foreseen the impact the programme would have. More than five years on and our unsustainable consumption of single-use packaging remains one of the hot sustainability topics.

Governments have introduced packaging regulations, taxes and bans. Campaigners have pressured businesses to act and set voluntary targets to reduce their packaging use – plastic in particular. And of course

the public – including children – have called for simpler recycling labels and access to less complicated collections.

Packaging therefore provides the perfect entry route for many schools to start talking about sustainability. The resources we use are responsible for 50% of greenhouse gas emissions and 90% of biodiversity loss. We have to stop consuming and wasting so much.



Reduce

Look at the waste hierarchy and at the top, the priority, is reduction of waste. This is where schools should start. "If you're buying it in, whatever it is, be mindful that you'll pay to get rid of it regardless of if it's recyclable or not," says Burge from the Priory Learning Trust.

Schools therefore should carefully consider their procurement: buying online can seem the least expensive option but not if the goods come in huge amounts of packaging that are costly to dispose of. Multiple deliveries from the same order can also increase the packaging pile and create headaches for

finance teams. Burge suggests thinking about "an exit strategy" for any resources you buy.

Simple solutions like buying big pump dispensers for condiments and reducing the number of single-serve items – from jelly to sauces – that are individually packaged can help save money. Some of these interventions are being forced through regulation, which includes bans on certain items, like plastic cutlery and polystyrene containers, that are due to come into force in England later this year.

The temptation will be to switch to other single-use options, like wooden cutlery or compostable containers. These can cost considerably more and the "exit strategies" are not always straightforward. Food-to-go at Brighton College is available in compostable containers rather than polystyrene ones, for example, but the challenge is ensuring that those containers end up in the right treatment plant; that is a composting site that is happy to take them. "It's a battle we're fighting," explains Sousanoglou.

Perception problems

When it comes to packaging reduction the focus can often be skewed towards plastic. It was in 2018 that the Department for Education called on all schools to be 'plastic-free' by 2022. This wasn't achieved

as schools, in the absence of clear guidance from government, struggled to know what to do.

Packaging is a highly perplexing topic, not helped by inconsistent media coverage and greenwashing from suppliers and companies that tempt schools into 'green' choices that simply don't stack up. A plethora of terms deliberately designed to obfuscate such as 'eco-friendly' and 'biodegradable' are found on packaging and this can leave teachers, governors, bursars and local authority decision-makers in a muddle.

The level of plastic use in schools is hard to quantify. What is clear is the confusion that exists about how to approach the nuanced issue of 'sustainable packaging'. As Gartner, a global technology and consulting firm, noted in a recent blog: "The reality of sustainable packaging is that it's complicated." Nathan Tiller from CarbonQuota, a net-zero specialist says: "There is no magic packaging; no sustainable silver bullet." That's sage advice: anyone looking at their packaging needs to do so with their eyes open and focus on reduction first.



Reuse

If reduction isn't an option then reuse is the next step down the waste hierarchy. Reusable packaging tends to beat single-use packaging on sustainability in most scenarios – provided the packaging is collected, washed and reused a certain number of times. How many times depends on the packaging and the system, and the more reuses the more carbon and resources that are saved.

Convenience is crucial. While lunch in Brighton College's main dining areas

is served in ceramic tableware, the school's busy timetable means that takeaway containers are sometimes needed. Reusable takeaway containers offered to teachers at Brighton College have proved successful, because teachers have a little more flexibility than students in where and how they can clean and store their container. Students are encouraged to bring in their own lunchbox but it's not a solution that works for everyone, says Sousanoglou. The college also trialled reusable cutlery that students could take to their common rooms for takeaways

and leave there to be collected but this "didn't work because they weren't being left in the right place for collection", she adds.

West Sussex County Council has also looked at opportunities to use reusable containers for the food that arrives in to the 180 or so primary school kitchens. These meals are finished by a bespoke steam cooking system called Steamplicity, and arrive in large multi-portion trays. These could be reusable but the logistics and costs of collecting and cleaning them currently don't stack up, says

Figgins. Prior to 2016, most of the single-use trays went to landfill. To stop this happening the trays are now made in white rather than black plastic, and waste contracts have been improved to facilitate better recycling for schools. A larger proportion of recycled plastic has also been added to the trays, while the number of food portions per tray has been maximised to reduce tray numbers.

Recycle

Plastic, paper, cardboard and glass can all be recycled but how easy this is depends on a range of factors. Different materials sealed together, for example paper with a plastic liner, are harder to recycle than pure paper. Single materials tend to be simpler than combinations, which allows materials to be recycled in closed loops. Recycling still delivers considerable preferable benefits in terms of reducing both greenhouse gas emissions and resource use. Recycled materials stand to cut associated carbon emissions by 50–80% compared to using virgin resources, according to Veolia. Increasingly, labels on packaging signal the amount of 'recycled content' used. Plastic packaging has to have at least 30% recycled content to avoid the plastic packaging tax, introduced in April 2022.

Those we spoke to in schools appear suspicious of where the materials they diligently sort out actually end up. There have been a number of media exposés on packaging waste that has ended up burning or piled up in far-flung countries. Increased transparency from

contractors will help allay fears and encourage further sustainable behaviours.

Many waste contractors organise trips to their recycling sites. This can provide insights to teachers and students into what happens with our waste and the challenges these companies face, such as contamination with unrecyclable materials. "Awareness campaigns that inform schools on the best way to both reduce and manage waste are a key activity," says Nick Burchett, external engagement manager at Veolia UK&I, a resources and waste company. "It's essential that school staff and pupils understand why we do what we do, what bins are for what wastes, and what can be recycled."

New guidance for education settings is on its way to help meet the requirements of the Environment Act 2021. Schools will need to arrange for the collection of a core set of materials for recycling, including glass, paper and card, plastic, metal and food waste, increasing the amount of material recycled and diverted from landfill. Details and dates are yet to be confirmed.

Top tips for packaging sustainability

Consider what waste is generated in the school and where – because what you don't measure you can't manage

Work with your waste contractor; a trip to a local recycling facility can not only educate but inspire staff and students and allay fears that materials aren't actually being recycled

Become packaging 'clever' by looking at all disposable packaging and not just plastic

Communicate the importance of minimising single-use packaging with key stakeholders like parents, including within packed lunches



The road recycling takes

Collection

Materials for recycling are collected, either separately or co-mingled and taken to a materials recycling facility – MRF.

Contaminants

Anything that can't be recycled or would harm the process or equipment is removed by hand on the conveyor.

Separation

A trommel and other machines separate the materials into different groups. Paper is screened by hand and then baled ready for sending to mills. Glass is passed under a magnet to remove metals, which are baled, and plastics are separated by type (bottles, pots etc) before being checked and baled.

"Awareness campaigns that inform schools on the best way to both reduce and manage waste are a key activity."

Nick Burchett
External Engagement Manager
Veolia UK&I



Circular thinking

At Invicta Primary School & Children's Centre in Greenwich, London, there is much work going on to ensure resources are used efficiently. The playground leaders ensure everything is put away in the sheds and looked after, which also saves money. It's about "taking ownership" of things and looking after them, says Kate Fry, the school's business manager.

Moves to ensure school uniforms are passed on are also proving successful at many schools: some are motivated by environmental reasons, others for social aspects and for all there is a saving money benefit.

Trash can be turned into treasure, too. At Damers First School they ran an award-winning 'Waxtastic no plastic' campaign in which the children made beeswax wrappers to sell. Local salespeople from an estate

agent and car dealership came in to teach the children tips on selling the wrappers and they made £5,000. Bringing together the whole school and the wider community to work on these waste projects really helps, says Edd Moore, primary teacher and eco-coordinator at Damers, who has also run collections for old cartridges that have reduced waste and generated cash.

Chapter five

Menu development



Schools can make the link between food and climate change by incorporating more plants into dishes and nudging pupils towards choosing them.

The link between the foods we eat and our warming climate (along with other environmental crises) has never been clearer. One quarter of the world's greenhouse gas emissions result from food and agriculture, according to Our World in Data¹⁸. For this reason, it's imperative to have a school sustainability strategy that addresses the food served to pupils.

Changing the balance of ingredients on the menu is a simple and highly effective action schools can take to reduce the climate impact of the food they serve. The UK Climate Change Committee recommends a 20% shift away from all meat and dairy – by far the highest emitting foods on average – by 2030 (rising to 35% by 2050) to put the UK on the path to net-zero¹⁹.

School caterers are responding in kind by finding innovative ways to incorporate more vegetables, pulses and other plant-based ingredients onto menus and to nudge pupils towards choosing them. "I've seen such a huge shift in attitudes of school caterers wanting to embrace more plant-based foods, primarily for sustainability reasons," says Jimmy Pierson, director of ProVeg UK, the NGO that supports 5,000 UK schools to adopt more sustainable menus through its School Plates programme. "Caterers are wanting to address the climate crisis through food," he adds.

Menu planning and development for sustainability largely takes three forms:



Ensuring a meat-free option is always available;

Reformulating meat-based dishes to increase the proportion of plant-based ingredients - so-called 'plant-forward' dishes;

Ensuring the ingredients you do serve - meat or otherwise - are as sustainably sourced as possible.

At West Sussex County Council, which provides meals for 180 primary schools via a contract with Chartwells, Monday is a dedicated meat-free day in its schools while fish is served on Friday leaving three days on which meat is served. On these days a meat-free option is always provided along with a jacket potato with a choice of a vegetarian filling. This is replicated across the council's in-house special school meals service and other council run contracts.

Prioritising plants

As part of its net-zero commitment, Chartwells' parent company Compass Group UK & Ireland is targeting a 40% switch from animal to plant-based proteins by 2030, with an interim target of at least 25% by 2025. Chartwells head of nutrition and sustainability, Olivia Pratt, explains that while there will always be a minimum number of plant-based dishes on school menus, the focus for the caterer has been on developing plant-forward recipes that are reformulated over a period of time to gradually reduce the meat content. This phased approach in part reflects the need to balance customer acceptance and nutritional requirements with the need to put lower-impact dishes on the menu. "It's important to turn the dial gradually because if we turn it overnight, we might lose the children and the parents," says Pratt.

Making too many menu changes too quickly can run the risk of certain meals either not being selected or being selected and then not eaten by students, thereby driving unintended consequences like an increase in food waste. Indeed, caterers have to constantly navigate the fine line between feeding children what they want and being more prescriptive about what children should eat. Nevertheless, there is growing evidence to suggest schools, and other



early-years educational settings, have a key role to play in broadening children's dietary intake by offering a facilitative environment to encourage their exposure to a large variety of healthy foods like fruit and vegetables²⁰.

Engagement of key stakeholders throughout the process of menu planning and development – from local authority catering leads to head teachers and chefs as well as educating parents and guardians – is key to its success. "In order for these changes to be long lasting, and to be built upon, we really need buy in from all parts of the chain," says Pierson.

Schools present an especially challenging environment for reformulating menus with less animal protein because they are bound by the requirements of the school food standards. In England, these require a portion of meat or poultry to be served on three or more days each week and a portion of dairy to be served every day. "The insights we're getting from the local authorities that we work with is that these standards are preventing them from making their menus as healthy and sustainable as they would like," says Pierson.



Meat resistance

Efforts to reduce the meat content of dishes can also sometimes face challenge from parents. "I currently get more pressure from parents and schools saying why is meat not on the menu every day during the cost of living crisis, than I get from parents saying why don't we have more plant-forward food," says Figgins at West Sussex County Council. "The council will continue working with our suppliers to reduce the carbon footprint of our menus; it is the right thing to do," he says, adding that "underpinning this approach must remain our need to strike the right balance for our customers, it is about choice and that is what we strive to offer".

Many schools still operate a meat-free Monday policy but some choose not to actively promote it for fear of triggering a backlash among parents or students, some

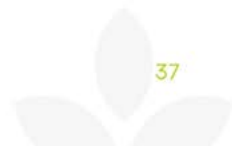
of whom can feel like meat-free choices are being "forced upon them" in the words of one school worker.

Meat is undoubtedly an emotive issue for the general public – as well as for politicians and businesses. Nevertheless, acceptance of plant-based eating within UK society continues to grow. Consumer research published by the Food Standards Agency in August 2022 found that 32% of people said they were eating more fruit and vegetables than a year previously, while 28% had cut back on meat, poultry or fish²¹. Around a third (32%), meanwhile, had tried a meat alternative product.

Businesses, including supermarkets and high street restaurant chains, have helped drive demand by growing their vegan and vegetarian ranges. More UK brands and businesses than ever before supported this year's Veganuary campaign, according to the organisers,

while globally over 1,600 new vegan products and menu options were launched during January – the largest number yet²².

The mainstreaming of plant-based options within the wider food environment should help those schools looking to offer more meat-free options. Yet barriers to wider acceptance of meat alternatives do still exist. Some students, who participate in active sports like rugby, believe that frequent consumption of high-protein meats such as chicken is key to their physical development. This is where engagement with students has an important role to play in shifting habits to more sustainable diets. Brighton College, for example, has an ongoing campaign to educate students on how they can get protein from lots of different plant-based food sources, not just meat.



Nudge tactics

Putting more sustainable options on the menu is only half the battle won. Caterers need to ensure that pupils (or parents/guardians if they are choosing on behalf of primary-aged children) choose these options when they are available. That's where behavioural psychology can play an important role. There is a growing wealth of literature on the ways in which people can be nudged towards making more sustainable food choices in out of home settings. The World Resources Institute (WRI) has been a pioneer of this approach via its Better Buying Lab programme. In its 'Playbook for guiding diners toward plant-rich dishes in foodservice' WRI includes tips such as placing plant-rich dishes in a more visible position in a self-service display²³; using language on menus to inform diners that plant-rich dishes are the most popular choice; or adding carbon footprint labels to menus, food labels, or shelf displays.

Pierson says ProVeg is helping schools put some of these behavioural nudges into practice. "We make sustainable dishes sound more attractive through creative naming," he explains. "Then we put them on the top line of the menu where research tells us they're chosen more often. We see a huge increase in uptake just from those changes to the menu architecture."

Compass, meanwhile has been exploring tools like the one provided by environmental data platform, Foodsteps, to measure, report and reduce their environmental impact. Pratt says there is growing interest from schools in sharing this kind of environmental impact data. "Understanding the environmental impact of the food we're serving is as important to us as it is our clients. The data helps us to not only inform future menu development and reformulation, but also to promote the recipes on our menus that are better for the planet, subtly nudging pupils to make better choices every day."

Schools do however need to be mindful of the risk of creating 'climate anxiety' among students, some of whom already experience challenges in navigating food choices. Burge at the Priory Learning Trust, explains that the trust had considered displaying information about carbon emissions on its menus but recognised the risk of creating further difficulties for students with eating disorders and other food issues. "We don't present that [information] to our students [...]. Because we don't want to trigger another reaction," she says. The information is however still proving hugely valuable behind the scenes in adapting menus and dishes so they are more sustainable.

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Sourcing standards

Sustainable menus don't start and end with incorporating more plant-based ingredients into dishes. Meat and dairy provide a good source of many key nutrients and will continue to feature in the diets of most school-aged children for the foreseeable future. Responsible sourcing of all ingredients, including animal proteins, is therefore a key part of a holistic approach to serving more sustainable food.

Schemes such as the Soil Association-run Food for Life Schools Award recognise schools that, alongside other criteria, are committed to serving dishes with meat that satisfies UK animal welfare standards and, for the higher award levels, a proportion of organic produce. However, especially in the state sector where schools are facing tight budgetary constraints, catering managers are having to make tough choices about the specifications they demand for their sourcing. Figgins says the aspiration at West Sussex Council is to buy 100% British meat and poultry but inflationary pressures and the failure of government funding to keep pace with soaring ingredient costs has forced a switch to sourcing poultry products from outside of the EU. "This is against our principle of wanting to support UK farmers, but we have to make ends meet; schools and parents are under severe financial strain," he says.



Advocates for a 'less and better' approach to meat argue that reducing the overall meat content in menus can lead to cost savings which can be reinvested in higher quality produce. Figgins, however, suggests this isn't always the case. "If it's a finished [meat-free] product it's still really expensive and not necessarily cheaper than meat; then there are the challenges about sourcing these products in the quantities required."


Nicole Pisani, co-founder of Chefs in Schools, a charity that works to put good food at the heart of the school environment, says it's important for schools to think creatively to keep costs manageable while maintaining quality. "When dairy was getting expensive we stopped using dairy in our cakes. When energy prices started rising we started to do fridge-baked cakes, rather than oven baked cakes. You have to be agile with your food costs."




"I've seen such a huge shift in attitudes of school caterers wanting to embrace more plant-based foods, primarily for sustainability reasons."

Jimmy Pierson
Director of ProVeg UK


Top tips for sustainable menu development:




Find ways to incorporate more vegetables, pulses and grains into menus by offering plant-based options and reformulating meat-heavy dishes



Use 'nudge' tactics to change the menu architecture to encourage more sustainable choices



Look for ways to maintain high sourcing standards while working within budgetary constraints, for example by adopting a 'less and better' approach to meat



Think creatively about how you can keep your food costs down without sacrificing quality

Chapter six:

Education

Consistency between how sustainability is taught and then applied in a school setting is key to getting buy-in to a whole-school approach.

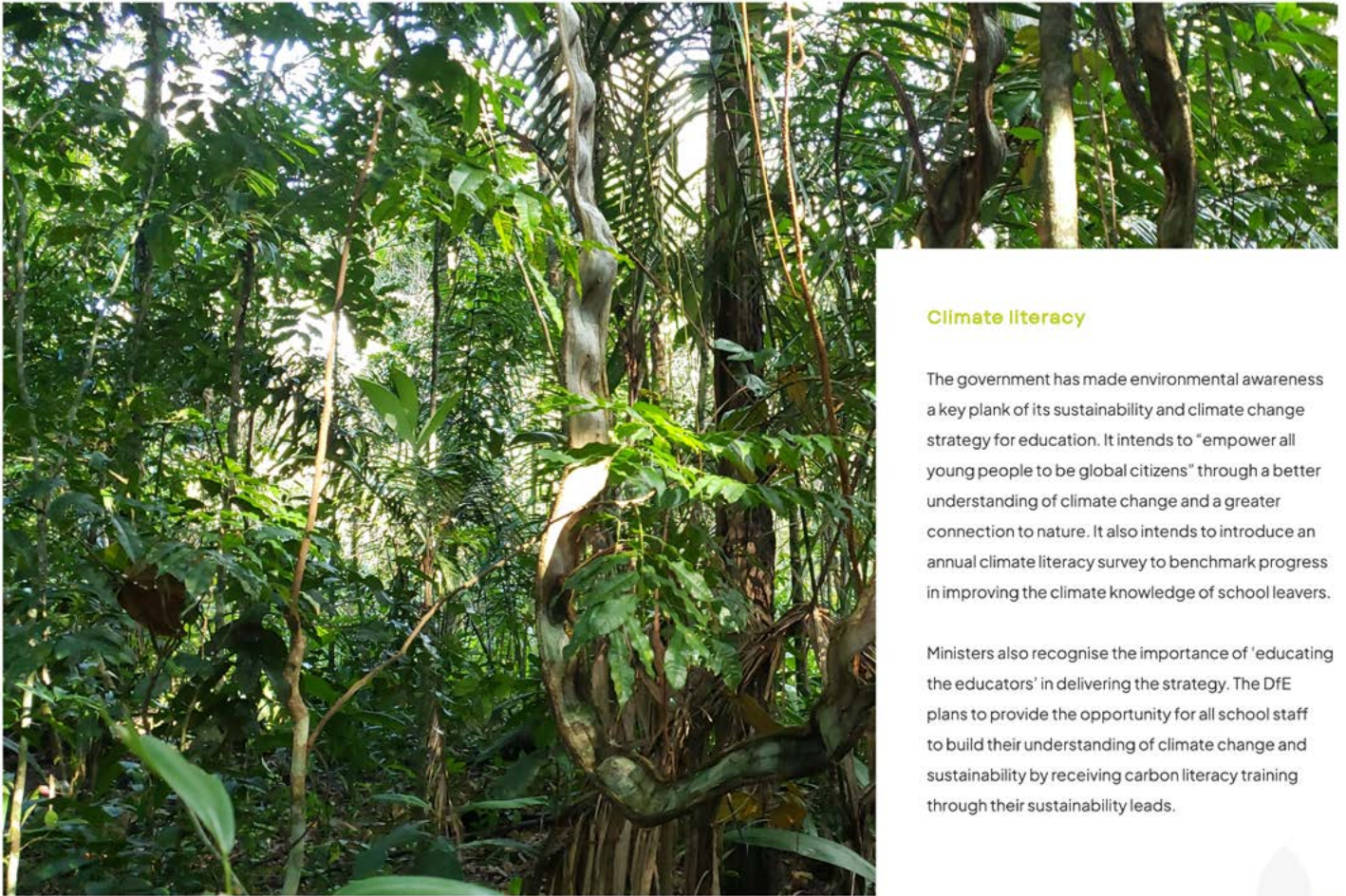
If schools are to successfully embed a culture of sustainability then education has to be at the heart of their approach. "Schools should live and breathe the ethics and environmental messages that are being taught," says Bremner at Bremner Consulting.

If pupils, for instance, are learning about plastic pollution in their geography class they shouldn't come into the dining room and see plastic water bottles stacked high in chillers. Similarly, Pisani suggests that if children have been learning about seasonality then serving strawberries for pudding in the middle of winter can send the wrong kind of messages.

Experts agree there has to be consistency between the way in which children are taught about issues such as food sustainability via the curriculum and the provision of food within the school environment: "If you want to talk about sustainability and there are real and obvious unsustainable practices going on in the school then you're presenting a conflicting and contradictory message to the child," adds Bremner. Food is a good example of where "the education and the food have to go hand-in-hand because otherwise

you alienate children," says Chefs in Schools' Pisani. She notes that growing environmental awareness and knowledge among children is putting pressure on schools "to be better at reflecting the values and ethos the pupils are learning in the classroom".





Climate literacy

The government has made environmental awareness a key plank of its sustainability and climate change strategy for education. It intends to "empower all young people to be global citizens" through a better understanding of climate change and a greater connection to nature. It also intends to introduce an annual climate literacy survey to benchmark progress in improving the climate knowledge of school leavers.

Ministers also recognise the importance of 'educating the educators' in delivering the strategy. The DfE plans to provide the opportunity for all school staff to build their understanding of climate change and sustainability by receiving carbon literacy training through their sustainability leads.

Chartwells runs a nutrition and food education programme called Beyond the Chartwells Kitchen based around five key themes:

-  Nutrition and health
-  Cooking and food
-  Mental wellbeing
-  Sports and exercise
-  Sustainability



Food link

Food lies at the intersection of many of the key environmental and social challenges the world faces and as such can provide a good route into broader learning about sustainability.

Part of the aim, explains Chartwells' Pratt, is to "link what we deliver in a classroom setting on sustainability and food education back to the food that we are serving at the counters".

Sustainability education, of course, can extend well beyond the classroom. Engaging pupils in vegetable growing, where space allows, or growing herbs, if space is more limited, create an opportunity to talk about the link between food and other sustainability issues such as waste and the circular economy. Some schools have invested in composters which can turn leftover food from the lunchtime service into the compost used to grow the school's own vegetables.

Harvesting rainwater from butts or boreholes to irrigate those crops provides another practical and simple way of linking food and the environment in the minds of pupils.

Denton at Suez says he often links presentations he gives to schools with practical activities such as a 30-minute litter pick with the class on the school grounds in order to highlight the amount of waste that doesn't end up in a bin.



'Green' teams

Indeed, many schools are finding new ways to encourage pupils to engage with sustainability outside of the classroom. The creation of 'green' or 'eco' teams is an especially common approach. Brighton College follows the pupil-led Eco-Schools programme run by Keep Britain Tidy as part of which it has established an

eco-committee made up of pupils from different year groups²⁴. Their job is to assess the college across different areas, and then devise and implement actions to improve sustainability. "Pupils use the school in a very different way to how staff use the school so they bring a lot of really good insights," says Sousanoglou.

The way in which schools choose to

communicate with pupils and internal stakeholders around environmental issues is also critical to getting buy-in to a cross-cutting sustainability agenda. Sousanoglou says "positive messaging is always the way to go", adding that introducing a competitive element, including the award of prizes, can be a good way of maintaining engagement and commitment.

Denton also believes that involving pupils in competitions, for example to design a poster, can be an effective strategy for embedding more sustainable behaviours. "In my experience if pupils have been involved with something they will want to see it through and make sure it happens," he says.



Parent power

Despite being key school stakeholders, parents are often forgotten when it comes to developing and delivering sustainability initiatives. Many parents, however, will have highly relevant skills honed through their professions or personal passions that can be put to use in the school environment.

Invicta Primary School in Blackheath, south east London, is situated very close to the approach road to the Blackwall Tunnel. In response to the pollution, and the harmful gases, two parents – a landscaper and marketer – worked in partnership with the school to drive forward a successful grant application to plant ivy – a naturally air cleaning plant – around the school's perimeter to create a 'living wall' to protect the children from particulate matter.



The Hackney School of Food

As co-founder of the charity Chefs in Schools, Nicole Pisani is at the forefront of a movement to put food education and cookery at the physical and cultural heart of the school. In Hackney, a formerly derelict and unused site has been transformed into a cookery school run by a team of chefs, gardeners and educators for the benefit of pupils as well as the local

community.

The team behind the Hackney School of Food recently published a toolkit to help other schools create a food education hub featuring practical advice across areas such as planning, design and operations²⁶.

The Hackney School of Food, a collaboration between Chefs in Schools and the LEAP Federation,

is described by Pisani as “the Rolls Royce” of food education hubs however the former restaurant chef says the model is replicable at various different scales and for different budgets. “All you need is someone who wants to replicate it. There are head teachers who literally have a shed behind the kitchen in their school and they’re asking how they can change that shed into a cookery space.”

Pisani is a firm believer that creating a whole-school approach to food starts with culture. “It’s not just about changing what’s on the plate, it’s about changing the dialogue of food in a school. It’s about walking into a school and smelling fresh bread, or having conversations about coriander in the lunch queue. That’s where we’re aiming to get to.”



"If you want to talk about sustainability and there are real and obvious unsustainable practices going on in the school then you're presenting a conflicting and contradictory message to the child."

Myles Bremner
CEO, Bremner Consulting



Top tips for linking education with sustainability

Make sure there is consistency between the way in which children are taught about sustainability and how they experience it in the school environment

Use school food as a route into broader discussions and learning about sustainability issues such as waste and water

Give pupils agency by establishing a green or eco team tasked with coming up with ways for the school to operate more sustainably

Tap into the skills and passions of parents by encouraging them to share their knowledge and lead their own sustainability projects

An appetite for change...

Covid-19 presented the British education system with its most challenging period for generations: sustaining learning through a pandemic. Climate change is the crisis that will impact generations to come. We have to adapt and schools – like every part of our life and economy – will need to become more sustainable to mitigate the effects. Whilst the urgency is real, we can make change. The Intergovernmental Panel on Climate Change’s latest report, published in March 2023, noted the “multiple, feasible and effective options to reduce greenhouse gas emissions” that are available now.



Schools across the country are embracing – where possible – some of these. From water saving initiatives and award-winning reusable packaging campaigns to renewable energy installations and nudges towards low-impact, low-food waste menus the appetite within the education sector to play its part is clear. Indeed, schools have a crucial role: both in reducing

their own emissions to net-zero and in educating the next generation about the crises we face and inspiring them to help change the world for the better.

In our discussions for this report the power held by pupils, parents and teachers to effect change came across loud and clear. From litter picks and scratch cooking to maths lessons

using data from energy smart meters, we are starting to see sustainability being woven into the fabric of the curriculum.

But they can’t do this alone. Engagement with the children and teachers is a great starting point and can drive motivation but as Burge from the Primary Learning Trust explains,

“the really big, gritty operational things like making sure that you procure green energy isn’t going to be via a student or a teacher it is going to be from a school business manager or an operations manager.” That’s why she asks those she manages to look at everything through a “green lens”.

Pressure on schools to report on their environmental impact is also set to grow as institutions – including trusts and local authorities – strive to deliver against their own net-zero targets. Brighton College includes carbon reporting within its financial accounts every year, including emissions from scope 1 and 2 and some from scope 3.

Is your school doing all of this? If not, don't worry, because there are others in the same boat. There are complex decision-making chains at schools, which can get harder when they are maintained schools and deal with local authority procurement issues.

The schools in this report and the experts consulted show the opportunities available. The considerable savings in water and energy for example that are possible through a socio-technical approach; the way food waste can be dramatically reduced through menu planning and interaction with pupils; the role of positive messages (and a little healthy competition) in driving engagement.

Net-zero has been pitched as a 'race'. It is not however a sprint. Schools who are just setting out on this journey can be quickly overwhelmed by the scale of the challenge they face, for example in meeting a 50% reduction in greenhouse gas emissions by 2030. The starting point will be data – you can't manage what

you don't measure – but this is something that many schools lack.

There is help, advice and encouragement available. And sometimes this is staring you in the face: parents, and the skills they possess from their professional and personal lives, should not be forgotten as key stakeholders in helping schools tackle their environmental impact in a holistic way.

A simple action plan to save energy (a priority in the current era of rocketing prices) can bring considerable financial savings (10% in the first year). A closer relationship with caterers can bring more sustainable plates to dining halls that are enjoyed by more children.

This report is written for teachers, bursars, governors and local authority decision-makers. It is not designed to strike fear (though the need to implement change is pressing), but rather to lift the lid on what is already possible in adopting a whole-school approach to sustainability, and what we must make a reality in the future.



Footprint Intelligence was commissioned by Chartwells to write this report: The research comprised in depth, semi-structured interviews with experts, desk-based research, involvement in industry events and forums, and comments and insights gathered from other opinion leaders linked to the industry. Footprint Intelligence is hugely indebted to the industry experts who generously gave their time and insights as part of the research process.

Thank you for taking the time to read this report. We want this to be a catalyst for discussion and engagement on the topics raised. If you would like to reach out and discuss these points in more detail please contact us using the details below.

enquiries@chartwells.co.uk

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