

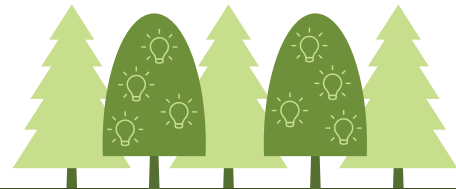
# LEADERSHIP for SUSTAINABILITY



SAVING THE PLANET  
ONE SCHOOL AT A TIME



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# INTRODUCTION

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Today catastrophe is well on its way, it is losing no time at all, but education seems still unable to get started, has indeed not even readjusted itself to start. The race may, after all, prove a walk-over for disaster.

**H. G. Wells (1942, p. 63)**

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When I relinquished primary school headship after leading two schools (three if you count an amalgamation) over 20 years, it was tempting to think that I deserved to sit back, potter in the garden and do some part-time school improvement consultancy to pay for extended out-of-season holidays. I am, after all, a middle-class baby boomer (those born between 1946 and 1964) who, like some of my peers, had it all in terms of homeownership, relatively high disposable income and an index-linked pension. Wasn't I therefore 'entitled' to an easier life after a stressful time in schools in very challenging circumstances?

The reason why I chose to sweat over a hot laptop to produce this book can be found in the realisation that I'm entitled to nothing. Why? Because my life to date has likely taken much more out of planet Earth's biosphere than has been replenished. This is starkly illustrated by Earth Overshoot Day.<sup>1</sup> This 'marks the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year'.<sup>2</sup>

I think of my numerous foreign holidays by plane and the hundreds of thousands of miles I've driven. This is compounded by my consumption of processed food with high carbon and water footprints, living in energy-thirsty houses and lazily using cheap products procured from ethically dubious sources. I also wince about

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1 To determine the date of Earth Overshoot Day, Global Footprint Network combines environmental data from many sources to assess humanity's resource situation. See <https://www.footprintnetwork.org>.

2 See <https://www.overshootday.org>.



the amount of single-use plastic I've consumed and how many cheap electronic devices and articles of clothing I've discarded without thought for how they were manufactured or disposed of. All this is nothing compared to bringing up two children in one of the most prosperous areas of the world: children themselves requiring vast planetary resources.<sup>3</sup> I've also benefitted from countless outdoor pursuits and aesthetic pleasures derived from the natural world, with some like skiing causing much damage.<sup>4</sup>

I'm as guilty of obliviousness, self-justification, obfuscation and denial of my personal responsibilities towards our planet as the next person.<sup>5</sup> Like many, I've also put my environmental concerns into a box marked 'to be dealt with later' while carrying on regardless. I'm one of the people benefitting from a WEIRD society – Western, Educated, Industrialised, Rich and Democratic (Henrich, 2021) – that instigated Enlightenment thinking, selfish individualism and associated superiority complexes.<sup>6</sup> Like many others in 'developed' nations, I've felt a misplaced sense of entitlement to my spoils, as if this was the natural way of things.

Having had a background in environmental education, I was aware earlier than most of today's headline environmental problems. This led me to put sustainability increasingly at the heart of my work, while endeavouring to pursue a low-impact lifestyle. But, as you can see from my past accumulation of overconsumption, I'm not preaching from an ivory tower of smug virtue. I sometimes did my best, but hindsight has shown me that it wasn't good enough. Suddenly, the distant deadlines for action of my youth have come uncomfortably close, along with a sinking feeling that some have passed. So, it's all too apparent that the social and

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3 On average, in developed nations, having a child creates 58.6 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) per year and meat eating 800 kg of CO<sub>2</sub>e per year. See Wynes and Nicholas (2017) for other things we do which cause high emissions.

4 For the detrimental impact of skiing, see Beaudry (2019).

5 Denial is a fascinating area of psychology. To illustrate this in relation to this subject matter, see the account of a community whose glacier was rapidly melting, but didn't want to address climate change in Kari Marie Norgaard's (2011) book *Living in Denial*.

6 The Enlightenment (sometimes referred to as the Age of Reason) emerged in Europe in the late 17th century and was the basis for the rapid developments in science, technology, economics and industry that have delivered the many material benefits we see today. The 'rational' thinking and belief in 'objective facts' behind it also increased the questioning of long-held religious and other traditional cultural beliefs, including regarding how societies should be run. New artistic forms also emerged during this time and later – both because of the Enlightenment (for example, realistic paintings depicting anatomical accuracy, science themes and everyday life) and as a reaction against it (such as Romanticism in the late 18th and early 19th century; the Arts and Crafts movement in the later part of the 19th and the early 20th century; and, in the early 20th century, Dadaism). Its modernist philosophy promoted the notion of continual linear progress and this greatly accelerated unsustainable human existence by magnifying our exploitative tendencies and the rift between ourselves and nature. It made people forget that we are part of a finite and precious world.

economic activities which are depleting planetary resources at an alarming rate need to change course as we enter the uncertainties of the geological Anthropocene epoch. National Geographic says: 'the current epoch is called the Holocene, which began 11,700 years ago after the last major ice age'.<sup>7</sup> This is being rapidly superseded by the Anthropocene Epoch, triggered by profound changes to the planet's biosphere caused by human activity. This shows that, like asteroid strikes and volcanic eruptions, humans are radically and detrimentally changing the biochemical make-up of the planet. It should be noted that not all humans are culpable as there are many billions who live well within planetary limits (unfortunately, in abject poverty due to exploitation and/or neglect by the people who live well beyond those limits).

Another strong motivation for writing this book is raw fear, enhanced by having a young daughter, who is 6 years old at the time of writing and might well be alive at the end of the century. Way before this, by the time she's an adult, environmental tipping points may well have been reached (some say that they already have) and I literally fear for her life and her generation, let alone those coming later. She may inherit some material advantage from my estate, but this will literally be worth nothing if civilisation crumbles due to the biosphere being unable to bear the burdens human beings place upon it.

Despite mending many of my damaging ways, I still owe the planet a substantial debt. So, if you see this book as a guilt trip, I suppose it is. At least I'm not in denial!

## SIMPLE ARITHMETIC

Saving the planet one school at a time might seem an extravagant claim. But imagine if every school *really was* a sustainable school in the widest sense, as I will outline in Chapter 1. The difference this would make to education and wider society would be inestimable – although let's try. My calculation goes as follows: one sustainable head teacher with a school roll of, say, 500 pupils, with 50 staff, would not only have the potential to influence those 550 individuals, but also their families, extended families and friends, which could take the figure up to several thousand. If the school had a high profile in this field, with the way social media works, it could reach many more, perhaps tens of thousands. If all the schools in

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<sup>7</sup> See <https://www.nationalgeographic.org/encyclopedia/anthropocene>.

England did the same, through six degrees of separation, we're talking about a reach of millions across the country and beyond.

But who are the planet savers needed to lead sustainable schools? In Chapter 2, I characterise leaders for sustainability as guardians of the long-term future who can inspire others to join them by providing opportunities for co-creating new solutions. They model types of thinking and behaviour which encourage everyone in the school to unleash their minds to avoid blind acceptance of what is 'normal' (much of the present normal being a planet wrecker). These leaders are upbeat and solution-focused through holistic means, offering a bright future for everyone. They have a strong moral compass – being values-led – and display high levels of empathy and courage. Above all, they are authentic rather than mass-produced cardboard cut-outs. These leaders think outside of the box, while recognising that the box, in the form of the present education sector, can't be ignored. They break away from unnecessary conformity and subtly game the system for the benefit of all. It's all about wanting everyone to thrive and flourish (Critchley, 2019) rather than just survive.<sup>8</sup> I emphasise that education leaders don't need to be trapped by the accountability imposed by a national education service and that, rather than being a peripheral issue, having a sustainability ethos is really the only sensible option on many levels. A sustainability mindset can throw off the chains of compliance laid down by others for reasons of power and/or outdated processes and traditions.

## AGE OF STUPID?

Most baby boomers and many in succeeding generations have been living in cloud cuckoo land by perpetuating a myth that we should expect indefinite economic growth on a finite planet. Consequently, graphs illustrating the rise of greenhouse gases and species extinction show exponential trends. When cells in the body grow like this we call it cancer! And it's not as if greening the present economy or waiting for various techno-fixes or large-scale geoengineering will necessarily be our ultimate salvation (although aspects of these will be needed).<sup>9</sup> Just as

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8 In Valerie Hannon's (2017) thought-provoking book *Thrive* she argues that in order for more of us to really thrive, we need more disruptor leaders – especially in education – who challenge dominant damaging paradigms in schools and society generally.

9 See <https://www.geoengineeringwatch.org>.

importantly, we need a change of priorities within a change in our very culture. Schools should be at the vanguard of this change. Films such as Al Gore's *An Inconvenient Truth* and its sequel spell out in graphic detail the factual overview of our plight.<sup>10</sup> For me though, the 2009 film *The Age of Stupid* has more of an emotional impact. It's set in the environmentally ravaged year 2055 and centres on an old man who looks through archive film of our time and wonders why not enough was done to alleviate climate change. Thought-provoking and scary!

Our current stupid Western societal approach is also bound up with neoliberalism, which although in most forms advocates governance with rigid structures of laws, rules and regulations (unlike neoconservatism) promotes the idea that other issues (including climate change etc.) should be sorted out by market forces which harness the power of individual choice and technical innovation. Perhaps it could be our saviour if we had more time to play with!<sup>11</sup>

Most schools have tinges of green, but they're not really sustainable in the same way that wider society isn't. Schools with sustainability at their core can overcome this by becoming part of the zero-waste circular economy. This helps to bring consumption down to within the planet's ability to replenish and avoid overshoot. This is in contrast to the 'take–make–use–dump' linear model, escalated by the Industrial Revolution and based on the consumption of fossil fuels. A circular economy works in harmony with the biosphere, and if happiness isn't dependent on the consumption of ever more stuff, why should schools subscribe to the old unsustainable narrative? The practical ways of working towards this circularity feature in Chapters 3, 4 and 5. In particular, Chapter 4 shows how school buildings and grounds (officially referred to as 'the school estate'), when linked to the curriculum, can deliver fantastic learning opportunities through adding to biodiversity and showing in microcosm how a circular economy can work in reality.

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10 The scientific facts presented by Gore are largely irrefutable and should have scared us into change. Why haven't they? Once again, complex psychology is at large.

11 See George Monbiot's (2016) account of neoliberalism, and also David Harvey's (2005) book *A Brief History of Neoliberalism*. Both are quite a revelation and shocking in their way.

## PERFECT HARMONY

Look out for the subject of harmony as it's a strand which runs throughout the book. Harmonious ecosystems work to their optimum, as do harmonious schools.<sup>12</sup> This is a challenge to achieve, but more than worth it.

Unfortunately, we are beset by a variety of linearities, many of which contribute to unsustainability. In Chapter 2, I highlight the problems with WEIRD linear/rational thinking in contrast to more rewarding ecological systems approaches. The novelist Hilary Mantel said, 'I don't dwell on time's arrow so much. I'm looking for what's cyclical' (The Guardian, 2020). Perhaps we should all do this a bit more.

In this light, Chapter 3 discusses decarbonising the curriculum by going through the similar and linked process of decolonising the curriculum. Both these elements can be seen as a reaction against the exploitative culture and structures of power that have dominated our society from time immemorial, through the mercenary exploitation of the biosphere and human resources for the advantage of the few at the expense of the many. This is very obvious when looking at the dark satanic mills of the 19th century and the dirty industry equivalents today, but due to complex and hidden supply chains, is not so obvious unless blatant examples are flagged up by the media. Most people who are comfortably above the breadline are happy with, or at least tolerate, our present economic system because it's assumed that it's the natural way of things. You don't have to look too far down the social stratification from me and you to see that this is crooked thinking, and it gets ever more crooked when applied to so-called 'developing' countries who suffer from our present and historic excesses (back to WEIRD psychology again!). This is why it's so important for schools to encourage young people to become critical thinkers, rather than just accept received wisdom.

It's significant that questioning the status quo regarding our use of the biosphere and lithosphere is becoming more mainstream, giving us cause for hope. Crimes against humanity in the form of genocide are being extended to ecocide (Higgins, 2015) as litigation has begun across the world to prosecute individuals and corporations for damaging the natural world on which we all depend. The rights of the planet are at last coming to the fore. Leaders for sustainability are part of this paradigm change.

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<sup>12</sup> Seek out The Prince of Wales, Tony Juniper and Ian Skelly's (2010) beautifully illustrated book, *Harmony: A New Way of Looking at the World*. The photographs alone are worth it.

## GOING WITH THE FLOW

To address our planetary challenges, there's a clamour for change from learners of all ages. For example, economics students at universities are rejecting classical and neoclassical economics in favour of sustainability-based 'new economics'. At the other end of the education spectrum, primary school children and their parents lobby for more local climate change action. Too often the response, if any, from education providers can be dismissive, too tokenistic or not joined up. Nonetheless, education leaders at all levels should be galvanised by the following three bodies of research from which I've taken excerpts (the full reports are well worth reading):

- 1 42% of young people aged 10–18 say they have learnt a little or hardly anything or nothing about the environment at school; 68% want to learn more about the environment and climate change; 49% would like to be more involved in projects or activities that help the environment; and 86% thought all schools and colleges should help pupils to do things to help the environment (Green Schools Project and NUS, 2019, p. 3–4).
- 2 70% of teachers think that the education system needs radical change for the times we live in; 69% think there should be more teaching about climate change in UK schools; and 75% feel they haven't received adequate training to educate students about climate change.<sup>13</sup>
- 3 77% of the general public said that learning about climate change should be part of the school curriculum.<sup>14</sup>

I feel it's rather shaming that many school leaders sit back and watch children and students taking the lead. Are they too compliant, risk-averse, cowed by The System or just too happy with the status quo? Ofsted, the school inspection body in England, is equally obtuse. For example, the English Learning and Sustainability Alliance (ELSA) lobbied Ofsted with the following suggestions and requests. That inspectors:

- 
- encourage reporting and look for evidence of learning for sustainability and suggest whole school approaches to it;

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<sup>13</sup> See [https://d25d2506sfb94s.cloudfront.net/cumulus\\_uploads/document/i6swtiz9ta/YG-Archive-02012020-OxfamClimateCrisis.pdf](https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/i6swtiz9ta/YG-Archive-02012020-OxfamClimateCrisis.pdf).

<sup>14</sup> See <https://yougov.co.uk/topics/education/survey-results/daily/2020/01/22/d1cab/1>.

- look for integrated approaches to curriculum, behaviour and attitudes and personal development;
  - use the interview time with students to see how their education matches with their concerns about the future and the world.
- 

Furthermore, that Ofsted:

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- suggests CPD for whole school approaches’;
  - ‘quality of education’ judgements include educating for a socially responsible and sustainable world and link with Defra’s 25 Year Environment Plan (and Bill) and DfID’s Connecting Classrooms through Global Learning and, so that SDG4 is reported on in a holistic way. Scott (2019)
- 

To date, Ofsted has taken no notice of these recommendations.

The desire to live sustainably is also much more apparent across the general population. For example, the Climate Assembly UK, which is a branch of the Citizenship Assembly, came up with 25 recommendations in order of priority. Number one was: ‘Informing and educating everyone (the public, industry, individuals and government).’ Within the top 10 was the desire for ‘A joined-up approach across the system and all levels of society’ and ‘Local community engagement’ (Climate Assembly UK, 2020, p. 12). Members of this assembly were recruited at random from across different demographics, and this gives yet another mandate for a leader for sustainability in a school.

## FISH, FORFEITURE AND FROGS

Chapter 5 shows how leaders for sustainability have an in-depth knowledge of their catchment areas and the wider world, past and present. This provides added insight into the causes of many of our unsustainable tendencies, allowing an escape from the following syndromes. Although they can be viewed as clichés, I’ve found them to be useful points of reference.

'Shifting baseline syndrome' is a phrase first coined by Pauly (1995). He was an ecologist looking at fisheries and came to the conclusion that his peers tended to judge the health of fish stocks by comparing them with how they were at the start of their careers, rather than investigating further back through historical records. As a result, their findings didn't fully take account of the decline over time because the baseline was set too recently. McClenachan (2009) showed this by studying photographs of trophy fish caught off the coast of Florida. In the 1950s they were longer than a tall man. By the 2000s their average length was less than 30 cm. This concept has been used in many other ecological studies and also by writers such as Robert Macfarlane, when highlighting how children and adults today tend to know much less about the natural world and so value it less. They don't realise that it has diminished over time because they have no points of comparison (see also Soga and Gaston, 2018).



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It's good to see that an increasing number of younger people are overcoming shifting baseline syndrome in light of the climate emergency. They *do* realise what they're losing and wish to do something about it – often to the shame of their elders – as exemplified by Greta Thunberg's campaigns.

'Corporate memory loss' is a related concept. Gardener and Bainbridge (2006) found examples of this when experienced personnel left a company without fully passing on their knowledge to those remaining or new people coming in. This sometimes led to drops in health and safety standards and the malfunctioning of certain administrative systems. They said that there was nothing new in this; it had always occurred, particularly in periods of rapid change. To illustrate this, they quoted Santayana (1905): 'Progress, far from consisting in change, depends upon



retentiveness. Those who cannot remember the past are condemned to repeat it' (Gardener and Bainbridge, 2006, p. 1). Change can also be mistaken for progress if we always think that bigger is better and that upgrades are beneficial. In the context of sustainability, this book argues that education should be part of a process of cultural change, enrichment and adaptation, rather than just promoting a narrow definition of 'progress'. This includes developing the wisdom to know what to retain, what to resist and what to adopt, otherwise our ability to cope is always in catch-up mode due to the 'rapidification' caused by technological advances.<sup>15</sup>

'Boiled frog syndrome' describes how if a frog is thrown into boiling water, it'll jump out immediately. If, however, it's placed into tepid water and the heat is gradually turned up, it'll be less likely to notice and will end up being compliantly boiled. This is a metaphor for any situation that is unacceptable, but which if introduced incrementally and surreptitiously will become the accepted norm. In my opinion, this is what has happened to many education leaders in England. They've been 'boiled', by being assimilated into a system which, although they might periodically grumble about it, generally assures compliance with its demands. This has led to a narrowing of the curriculum and the plummeting mental health of pupils and staff. Despite prevailing challenges, education should aim to help achieve the greater good for everyone in terms of physical safety, mental well-being and social justice. These can't exist on a sick planet and, conversely, a healthy planet needs well people in all senses. Well-being is also linked to school improvement (Rees, 2017), which is why it features prominently throughout this book.

I was depressed to hear a principal of a sixth-form college bemoaning the loss of exams due to the COVID-19 crisis. I paraphrase him here: 'These students have been in full-time education since the age of 4 and at the age of 18, at the *culmination of their schooling*, have been robbed of the chance of a university place and successful career.' He was displaying the classic signs of boiled frog syndrome. Is it really the case that a young person's time in school is all about the build-up to the exams they take between the ages of 16 and 18? Is the end product above the process? Shouldn't education be as much about 'drawing out' a child's originality (to return to the original etymological meaning) as 'putting in' and examining the way they retain this? Shouldn't education be a process of synthesis between

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<sup>15</sup> In his second encyclical, *Laudato Si*, Pope Francis (2015, p. 15) refers to an acceleration in the pace of life and work ('rapidification'), which causes anxiety to individuals, places strain on communities, and harms the environment.

educators and learners which produces a new and better culture? At the moment, it appears that we spend far too much time weighing the pig rather than feeding it!

## TALK IS CHEAP

There are myriad writers on education leadership, ranging from eminent academics to cultish gurus. I reference some of these, although I keep returning to the practical things we did in my own schools to embed sustainability and the effects these had. I not only aim to show the art of the possible, but also how we as leaders have a rich potential to deviate from the norm without jeopardising our positions or those of our colleagues. We can enhance what can be done on the ground to embed sustainability in the widest sense. It's difficult to provide hard and fast templates for this because each school is unique, but I suggest ways of operating which can be tailored to any situation. To provide context, I offer the five Cs of sustainability:

- **Captaincy.** Through an in-depth study of leaders in a wide variety of primary schools that achieved Eco-Schools Green Flag status, I distil what a leader for sustainability really looks like, how they operate and why their traits deserve a distinct and special leadership category more in keeping with facing up to current challenges. I give examples of whole-school approaches through systems thinking and planning frameworks for those who wish to embed sustainability, rather than see it as a bolt-on. Captains of sustainability lead from the front where necessary, but more often use distributive and servant methods of leadership to empower everyone for the greater good.
- **Curriculum.** Education for sustainable development (ESD) is explored and I give lots of practical examples of how it can enhance teaching and learning through cross-curricular approaches, while also enabling schools to tick the 'standards agenda' boxes. The value of learning via head, heart and hands is central to this process and exemplified in forest school practices. The thorny problem of sustainability bias is tackled. How can we enable children to deal with issues impartially, while also wishing them to live more sustainably?<sup>16</sup>

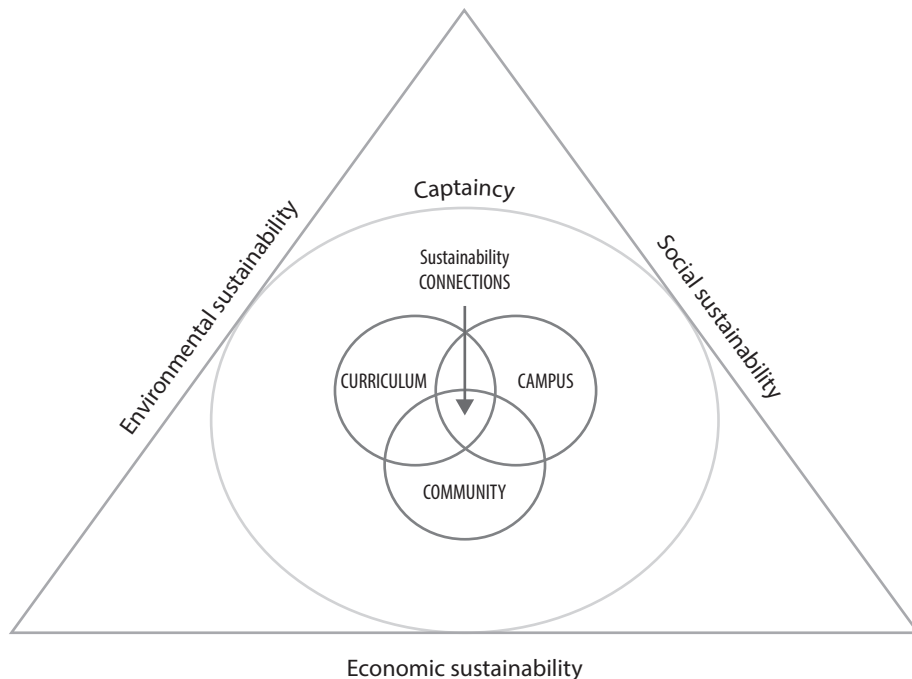
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<sup>16</sup> See Tilbury (1997) for examples of using a head, heart, hands approach to help learn about environmental problems.

- **Campus.** A school's buildings and grounds can be utilised to bring down a school's overall carbon and other footprints and improve biodiversity, while enriching the ESD curriculum. This is where schools can showcase sustainability in tangible forms, such as low-impact procurement and skilful waste and energy management. This can be highly influential for those who use them day to day or who come across them as physical or online visitors. Reduce, recycle, reuse, repair and repurpose feature prominently. I also show that behaviour change is often more important than grand eco-technology when it comes to sustainability, and another reason to strongly link campus with curriculum.
- **Community.** Any school community should be an asset rather than a 'problem', and sustainability can be the catalyst for community enrichment which then provides a positive feedback loop into the children's experience of education and their capacity to learn. I show how this manifests in improved community cohesion and better mental health for all school stakeholders. Early intervention programmes are also shown to benefit from a sustainability approach, taking the Every Child Matters agenda into a new dimension in terms of physical, mental and social well-being.
- **Connections.** 'Linked thinking' are the watchwords here. This is where leaders for sustainability subtly weave together all the elements within each of the other Cs and make relevant connections between them. I provide additional examples of how making connections can improve overall 'wisdom' (individually and collectively) through additional insights into the complexities of the modern world and how schools can play a pivotal role in securing a sustainable future.<sup>17</sup>

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17 The linear format of most books, be they fact or fiction, can also be a barrier to holistic thought. Throughout the book, I show how links between areas of knowledge and concepts are just as important as the knowledge and concepts themselves. Having an ecological perspective encourages people to eschew computational and linear thinking and 'silver bullet' solutions. This is why I highlight the interconnectedness of issues: not just to appreciate the complexity of things but to encourage the search for joined-up initiatives. The 'think global, act local' adage is a vital part of this and another important strand of the narrative.



**Figure I.1: Main elements of the book**

Education leaders are well placed to cause butterfly effects that initiate even greater waves which can disrupt the destructive status quo.<sup>18</sup> This requires a certain kind of moral fibre, itself a product of a certain set of values, which most have within themselves if they care to fully use it. This incorporates a sixth C, namely courage, featured in the concluding chapter.

To help leaders make informed judgements about sustainability, I recommend interdisciplinary and multidisciplinary approaches throughout the book. This is where much of our education and schooling lets us down because it tends to be non-joined-up and siloed by subject, and this gets worse as children get older. Sustainability is a natural vehicle for developing a type of fully integrated learning

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<sup>18</sup> The butterfly effect was popularised by climatologist Edward N. Lorenz in 1963 and became a central concept in chaos theory. It described how even a tiny event can trigger knock-on effects that continue to amplify it, such as the flap of a butterfly wing eventually leading to a tornado on the other side of the world. The added message is that we meddle with nature at our peril.

ecology for the benefit of all. This also keys into the conventional school improvement agenda. Sustainable schools can deliver success as measured by test results and inspections through benevolent rather than coercive means and without that success being the be-all and end-all of a school's existence.

The leadership for sustainability recommendations on page 15 and at the end of each chapter are there to encourage further thought and discussion among school stakeholders.

## APPENDICES

At first, I was loath to include model sustainability policies because there's always a temptation for someone to do a copy-and-paste job, rather than develop them organically as sustainability becomes embedded. However, on second thoughts I deemed it useful to add them so that anyone new to this area wasn't starting from scratch. The appendices contain examples of sustainability policies and planning formats which need to spring from strategic development.

Some schools have a separate 'sustainability policy'. This can be a good starting point, although I preferred to incorporate our sustainability ethos within the mission statement (see Appendix 1). This fed into the school improvement plan and from there into separate operational policies, such as those covering ethical procurement (Appendix 2), fair trade (Appendix 3) and energy (Appendix 4). A highly significant policy – food and catering – features in Appendix 5. This is a prime example of an area that can gain greatly from a curriculum, campus and community approach. In Appendix 6, a sample subject curriculum policy shows how ESD can be embedded, in this case within design and technology. Appendix 7 is an illustration of how a harmonised approach can be taken when several partners wish to raise the profile of learning in a community. This is based upon a real-life example which is described in Chapter 5.

A learning charter (Appendix 8) came about because we wanted a succinct methodological overview to which stakeholders (and inspectors) could refer. It also reiterates the importance of 'soft' outcomes – as opposed to the 'hard', easily measurable variety – and illustrates how sustainability can be the driver for a 'learning entitlement' for all and a practical guide to fulfilling a school's mission.

I have included a curriculum statement (Appendix 9) based on one developed at my head teacher friend Naheeda Maharasingam's school (such a statement is obligatory in England and has to appear on the school's website). She wanted to highlight how her school's curriculum needed to be culturally relevant as well as responding to the learning needs of each child. It also aimed to create critically aware, active learners, not passive receivers of knowledge. Once again, sustainability underpinned the statement.

Naturally enough, in our school, each curriculum policy featured sustainability (see again Appendix 6), and this fed into the teachers' planning. Appendix 10 shows the integrated subject overview guidance, which helped teachers to fill out their own medium-term plan (Appendix 11). We didn't have to reinvent the wheel on this; it just required us to weave in ESD once there was a good understanding of what it looked like in the curriculum.

It's important to view all of these policies as pieces of a sustainability jigsaw, rather than as stand-alone, which is why there are cross-references between them. They are also designed to be used constantly as reference points for practical actions, not consigned to a dusty shelf once written. Leaders for sustainability need to walk the talk!

## LEADERSHIP FOR SUSTAINABILITY RECOMMENDATIONS

- Escape shifting baseline and boiled frog syndrome by stepping back and taking a fresh look at your school's situation and how it operates in the context of external factors. Assess how much influence you really have over your situation, rather than what others imply or tell you. Question your school's present 'normal'. Make a point of accessing information and people from beyond your echo chamber. Try to be open-minded about ideas and concepts which might seem alien but might inspire new thinking.
- Escape fatalism and cynicism in relation to your situation. Remember how you felt at the start of your career when it's likely more things seemed possible.
- Recognise that school leaders are in a fantastic position to help the cause of sustainability as part of the same educative process which influences the

lives and life chances of the thousands of children who pass through their schools and the tens of thousands, or more, who may be influenced through various butterfly effects.

- If you haven't thought too much about neoliberalism, I'd recommend finding out more about it. Once I did, it explained a lot about the state of our current society and how to cope with it as a school leader.



## Chapter 1

# SUSTAINABILITY STEERS

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The world is not indefinitely large. We simply can't hurl ourselves at it with the abandon of the past 10,000 years.

**Colin Tudge (1996, p. 342)**

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This chapter outlines the scope of sustainability as applied in this book. Sometimes sustainability can be restricted to quite narrow and distinct areas centred around the conservation of nature and recycling. As important as these are, I want to go beyond this 'greenism' to show that sustainability is literally life, the universe and everything!

Sustainability can be a slippery concept due to being multi- and cross-disciplined and concealed within other labels. It's often misconstrued because it invariably crops up in single issues (our use of plastics being a case in point), which omits relevant links to other issues and the overarching problems with our economic system. For example, much of the plastic in the UK is made from gas imported from the environmentally damaging fracking industry in the United States. This means that we shouldn't just worry about plastic in our rivers and oceans.<sup>1</sup> Why do we use so much plastic in the first place?

There's much room for debate over causes, effects, connections and remedies for various environmental, social and economic problems. In some ways this is a strength because it lends itself to participatory approaches to identifying and dealing with complexity, but it's also a weakness if those participating lack basic ecological knowledge and/or have vested interests and are intent on

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1 For an account of fracked gas and plastic, see Moyes (2020).



greenwashing.<sup>2</sup> It's also a weakness if people don't participate because they're not able to and are excluded, or because they are happy with the present business-as-usual scenario or, at the very least, can tolerate the status quo without too much question. After all, business as usual is much easier to understand and quantify in terms of gross domestic product (GDP) than by using more complex measures, such as the Genuine Progress Indicator and various well-being indices.<sup>3</sup> It may well be a case of 'the Devil playing the best tunes', because too many of us are caught up in the turmoil surrounding producing and consuming. Being sustainable requires more in-depth thinking and this can be just too tiresome, thus fuelling justification and/or denial of the status quo.

## PROTECTING GAIA

There are natural feelings of 'biophilia' (love of life or living systems, as described by Wilson (1990)), which are prompting some of us to pursue paths based upon a sustainability ethos. James Lovelock's (2000 [1979]) concept of Gaia links to this, in that he propounded a theory which says that the Earth is like a complete living organism made up of billions of interconnecting living and non-living parts, some of which are you and me and which together create and sustain life.

From this, Lovelock maintains that evolution has left us in a privileged position because the Earth had nurtured creatures who have contributed to the well-being of the whole environment and thus themselves. However, he says: 'I never realised just how destructive we were, or that we had so grievously damaged the Earth that Gaia now threatens us with the ultimate punishment of extinction' (Lovelock,

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- 2 Beware greenwash. Many organisations trumpet their green credentials when, in fact, compared to the damage they cause to the biosphere, they are infinitesimal. The phrase was probably first coined by Jay Westerveld in a 1986 essay regarding the United States' hotel industry's practice of asking guests to indicate which towels they hadn't used to help 'save the environment'. This was actually a ploy to save money on laundry, as the hotels did little else to be sustainable (see Watson, 2016).
- 3 The Genuine Progress Indicator is one of an increasing variety of measures which gauge many other factors of human existence, not accounted for in measures of GDP. A version developed in the United States uses over 250 social, economic and environmental factors to determine human progress or regression. These include levels of pollution, amount of voluntary activity and rates of crime (see <https://gnhusa.org/genuine-progress-indicator>). An example of a well-being index can be seen at <http://global-perspectives.org.uk/volume-three/infographics>. See also Raser-Rowland and Grubb's (2016) book *The Art of Frugal Hedonism*. They advocate 'recalibrating senses' and creating a 'new normal' to rethink values in terms other than material consumption.

2007, pp. 188–189). I tell children that it's not a matter of 'saving the planet', it's about the 'planet saving us'.

## BIOSPHERE BLUES

When talking about the biosphere, I'm referring to the thin strip of the Earth's surface which can support life in any shape or form. Although estimates vary depending on whether you count single cellular life in the atmosphere, it's about 20 km thick from the deepest ocean trench to the top of Mount Everest (obviously, humans can only thrive in a much thinner portion of this). I demonstrate this to children by placing some cling film around a globe. This layer is what we're inadvertently destroying. The thinness shows its preciousness and its vulnerability.

The fact that humans can survive on all continents is testament to our cleverness in manipulating our environment to maintain a suitable microclimate by wearing optimal clothes, building houses and utilising external energy sources for heating or cooling. Developing agriculture and many other technologies has also consolidated our superiority over all other species. This is our success, but also our undoing, because in its current form – despite renewables and other 'green' technologies – we are still wreaking havoc on the biosphere. It isn't sustainable.

## DEFINING SUSTAINABILITY

A simple dictionary definition of sustainability is: 'the ability to be maintained at a certain rate or level'.<sup>4</sup> Other words that spring from a thesaurus relating to being 'sustainable' include: 'trustworthy', 'reliable', 'dependable', 'good', 'valid', 'legitimate', 'warranted', 'well founded', 'justified', 'just', 'sound', 'reasonable' and 'sensible'.<sup>5</sup> For the purposes of this book, defining sustainability revolves around two questions: first, how long are we talking about, and, second, what are we applying it to? When confronted with difficult times, my late mother always said,

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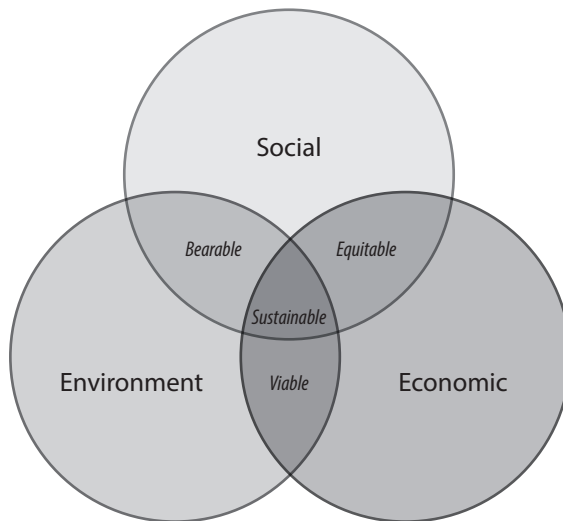
4 Oxford University Press, sustainability, *Lexico.com* (2021). Available at: <https://www.lexico.com/definition/sustainability>.

5 Oxford University Press, sustainable, *Lexico.com* (2021). Available at: <https://www.lexico.com/definition/sustainable>.

'nothing lasts forever'. This is demonstrably true when you consider that in millions of years the Earth will be consumed by the sun as it becomes a red giant beginning its death throes. So, definitions of sustainability are always relative to the period of time to which they refer.

If we were traditional economists, we might talk about keeping inflation at a sustainable rate of 2% per annum. When talking about sustainable leadership, we might be putting in place a system to ensure succession planning by nurturing people through mentoring and training, so they can fill leadership roles as other staff members leave. When applied in the context of this book, we are thinking in terms of preserving the planet's ability to function in such a way as to ensure the continuing existence of life – including ours – in perpetuity, and for this life to be worth living. This means there is an interlacing of environmental, social and economic elements and the need to discuss philosophically what perpetuity and quality of life mean. Again, it's not just about being 'green'.

Stripped back to the basics, sustainability can be seen through the following model.

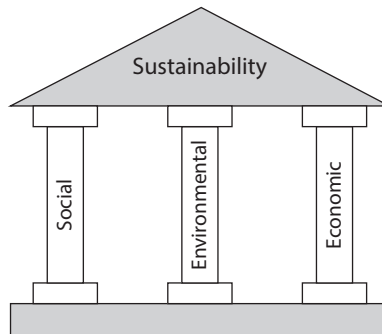


**Figure 1.1: Basic model of sustainability**

Notice that sustainability resides in the central area which is above and beyond the 'viable' environment/economic, 'equitable' economic/social and 'bearable' social/environment overlaps. This is important because it emphasises why sustainability over the long term is hard to achieve (even if we agree on a definition). For example, in the case of clothing manufacturing, an industry might achieve equitable social and economic conditions for the producers, but fail to fully address the environmental consequences of sourcing the raw materials and the manufacturing process. Cotton might be grown using farming methods which fail to protect the soil and surrounding ecosystem by using harmful pesticides and herbicides.<sup>6</sup> Manufacturing methods might include hazardous dyes and other chemicals which leach into soil and rivers. Sooner or later, the environmental damage would have a detrimental impact on the social and economic fabric of the community. The children's book *The Lorax* by Dr. Seuss illustrates this better than many an academic tome by highlighting the wanton destruction of the natural world for monetary gain.

## BREAKING DOWN AND JOINING UP

Another way of gaining a basic understanding of sustainability is through the three pillars model (see Figure 1.2). This model is in contrast to Figure 1.1, which emphasises the links between the three elements.



**Figure 1.2: Three pillars of sustainability**

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<sup>6</sup> See pages 128–130 for more on this.

It's useful to have an understanding of each of these pillars and, as described earlier, just as important to see where they link and where the causes and effects lie.

This shows how important it is to judge how long an action or behaviour can continue without causing problems. If the judgement is that it may be okay over the next few decades, but will jeopardise aspects of life for future generations, then it's patently unsustainable. As Meadows et al. (1992) put it: 'A sustainable society is one that can persist over generations, one that is far-seeing enough, flexible enough and wise enough not to undermine either its physical or social systems of support.' By many measures, we can hardly claim much of this wisdom and this is where education can be instrumental in redressing the balance.

## GENERATION GAME

People blithely talk about the need to 'leave a world fit for our children and grandchildren'. The United Nations (UN) World Commission on Environment and Development – better known as the Brundtland Commission – said that ecological sustainability must ensure it 'meets the needs of the present without compromising the ability of future generations to meet their own needs' (UN, 1987, p. 16). How many future generations was not defined. In this context, looking to the needs of our grandchildren is really very short term as it only thinks about two future generations, who might already be on the planet (depending on your vintage). Perhaps we should see this from another perspective, as expressed by the well-known saying: 'the world is not given by [our] fathers, but borrowed from [our] children' (Berry, 1971, p. 26). The famous naturalist Jane Goodall takes this further by saying: 'We have not borrowed our children's future – we have stolen it and we're still stealing it' (Cooper, 2017).

Scientists shouldn't have a monopoly on explaining the consequences of unsustainable lifestyles to the rest of us. Indigenous people, particularly in the Arctic regions, bear direct witness to their effects and can add their own unique perspectives on what we are losing and how we can change our ways (more on this in Chapter 3). I think we should be as forward-thinking as the Iroquois First Nations Americans. Harland (2018, p. 6) describes this perspective as spanning 14 generations – seven before and seven after, with us in the middle. We need to use the wisdom of our ancestors to help forge a sustainable future in perpetuity.

Harland is writing from a 'permaculture' perspective. This approach to sustainability can extend to all areas of life. For example, permaculture would say that the ultimate goal of farming isn't to produce crops but to nurture the soil. If this is done, crops will be forthcoming for the indefinite future. Similarly, in a school, you could say that leadership should make sure that all human beings are nurtured to ensure a measurable yield of learning. Permaculture will be discussed in more detail in Chapter 5.

## MEASURING AND DRAWING LINES

Most people know intuitively that material wealth above a certain level yields diminishing returns of happiness,<sup>7</sup> and that often the best things in life are free, such as having access to unsullied nature or the love and companionship of other human beings. Yet generally these things aren't commodified, and the overall economic system doesn't 'value' them sufficiently. GDP doesn't take into account the purveyance of love or voluntary acts of human kindness, it only measures monetary transactions. So, I add to GDP if I buy and drive a car, but I don't if I give my time to help the local charity shop. GDP likes arms sales and reconstruction after war, but not peace talks that make weapons irrelevant. It likes pollution because of the economic activity involved in clearing it up. If GDP were a person, we'd say they were amoral, if not downright immoral.

However, GDP isn't a human being; it's merely a human *construct* that appears to have taken on a life of its own, but it's portrayed as indomitable and itself a law of nature as defined by classical economics. The system it creates and supports isn't inhuman, but *unhuman*. Despite escalating environmental depletions and associated social and economic damage, most politicians and the media encourage us to worry about GDP if it isn't rising. There's a weird cognitive dissonance going on here, because it's often the same agencies flagging up the doomsday scenario of environmental breakdown. Yet it's still a mistake to commodify 'natural capital' with a wholly monetary value because this is an inadequate measure. What price do we put on a sunset or the sight of a whale?<sup>8</sup>

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<sup>7</sup> This is backed up by academics such as Layard and Ward (2020), also featured in Chapter 5.

<sup>8</sup> The UK government's Department for Environment and Rural Affairs (Defra) produced guidance on valuing nature and conceded that 'It is also recognised that a natural capital approach does not always require monetary valuation' (Defra, 2020, Section 1.2). This document still sees nature as mainly an exploitable 'service' for humans though.

As a leader, even if you have a clear idea about what sustainability is, when it comes to creating a sustainable school there is an additional challenge: namely, where do you draw a line between the sustainability of your own educational establishment and that of the outside world? How you answer this question depends upon how far you go down the sustainability road. It can be challenging to get your head around the issues, but they are, after all, based in our everyday existence. All it takes is a bit more detailed knowledge, benevolent values, new perspectives, joined-up thinking and sometimes a leap of faith. Also, it's worth realising that a school *is* a part of the outside world, so whatever a school leader does will make a difference beyond the perimeter fence.

## EMBODIMENT OF CONFUSION

The embodied carbon issue is worth a special mention here because many people don't realise its significance. Embodied carbon is all the CO<sub>2</sub> – and/or greenhouse gas equivalent (CO<sub>2</sub>e) – that accumulates when a product is created, from the extraction and processing of raw materials to manufacture, packaging, transportation to a consumer, then disposal. This means that although, on paper, a country like the UK has a much-reduced carbon footprint because most of its mining, carbon-excreting energy production and heavy industry and manufacturing has disappeared, the carbon this would have produced is displaced (outsourced) to those countries from which it imports goods. If this is taken into account, the UK's carbon footprint – although reducing – is still very high because the carbon is embodied in the stuff. This can also be labelled as 'Scope 3 emissions' (described in more detail in Chapter 4). These emissions accounted for about 358,000,000 tonnes per annum (including international aviation) in 2017 (Harvey, 2020). Compared to Russia, China, the United States, India and Japan, the UK imports the most carbon per capita (Office for National Statistics, 2019). This means that we should always look at consumption-based data rather than territorial data.<sup>9</sup> It's also worth knowing that methane is about 30 times worse than the equivalent volume of CO<sub>2</sub> for causing greenhouse effects. Food waste, poor soil management, gas pipe leakages and melting permafrost are the chief human-made causes.<sup>10</sup>

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9 For more information on the carbon footprint of countries, see: <http://globalcarbonatlas.org/en/CO2-emissions>.

10 For more information on methane, see Voiland (2016).

People get fixated on reducing CO<sub>2</sub>e footprints. As important as this is, it can mask the issue of biodiversity loss (which is closely related). The Science Academies of the Group of Seven (G7) nations stresses the need for greater awareness of how supply chains and consumption have a diverse impact on the natural world, and hence its capacity to soak up excess carbon and renew the biosphere resources that are needed to sustain life.<sup>11</sup> The production of palm oil at the expense of the rainforest is a classic example of this. As is commercial forestry, which is sterile and can deplete soils and diminish their capacity to sequester carbon.<sup>12</sup> A school's procurement policy needs to take this into account (see Chapter 4).

In a related point, Brahic (2021, pp. 3–4) points out that 'the bio-diversity crisis poses as great a risk to human societies as climate change. Yet it has a fraction of the public profile'. She thinks this is partly due to the difficulty of quantifying it and pinning down the causes and effects within and across ecosystems, which are even more complex than those which drive the climate. The role of insects in pollinating food crops (about 35% of these crops rely on insect pollination, according to the Natural Resources Conservation Service<sup>13</sup>) and as the base layer of food chains and webs is a case in point. A sustainable school prioritises nature study (natural history) and also tries to increase biodiversity in the school grounds (see Chapters 3 and 4).

So, this is my take on sustainability, which I hope will give context to the rest of the narrative.

## LEADERSHIP FOR SUSTAINABILITY RECOMMENDATIONS

- Check what colleagues think sustainability really is and compare their responses to the discussion here. A sustainable school needs clarity on this matter.

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11 See [https://www.interacademies.org/sites/default/files/2021-04/DES7289\\_2\\_S7%20Statement\\_Biodiversity.pdf](https://www.interacademies.org/sites/default/files/2021-04/DES7289_2_S7%20Statement_Biodiversity.pdf).

12 For a useful non-technical overview of the value of good soil management (including reduced water consumption) linked to the Sustainable Development Goals (SDGs – to be described later), see <https://www.natureandmore.com/en/sustainable-development-goals-and-the-link-to-organic>.

13 See <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate>.



- Don't expect full consensus on any aspect of sustainability, but, by the same token, don't be afraid to put forward bold plans just because some people don't get it. Seeing is believing.
- We need a scientific and a wider cultural perspective on sustainability. Make sure you tap into everyone's knowledge to get balance. When running training for teachers and leaders, I've found that there are many misconceptions, or a lack of understanding, about some of the science, especially in primary schools where most staff tend to have arts backgrounds. Similarly, aspects of social and economic phenomena aren't recognised as being part of the sustainability picture, and people with pure science backgrounds can miss this, especially in secondary schools and above.

## A STIRRING AND INFORMATIVE GREENPRINT TO HELP SCHOOL LEADERS PLAY THEIR PART IN MAKING THEIR SCHOOLS MORE ENVIRONMENTALLY FRIENDLY AND BETTER PLACES TO LEARN FOR ALL.

Mobilised by the rousing words and protests of Greta Thunberg, young people all over the globe are calling for more action to combat climate change and better protect their futures. Yet they cannot do this alone. They are reliant on people in positions of power to set the necessary changes in motion – and these people include their own school leaders operating within their own local communities.

This book is a rallying cry for all schools to unleash their potential to deliver a brighter future for both their pupils and society at large.

David Dixon draws on both his doctoral research and his 20 years' experience as a head teacher to set out how school leaders can embed eco-friendly practices in the day-to-day running of their schools that will also contribute to overall school improvement. David weaves his guidance around the 'five Cs of sustainability' – captaincy, curriculum, campus, community and connections – to position sustainability as a natural vehicle for developing a type of fully integrated learning ecology and culture for the benefit of all.

**Suitable for school leaders, teachers and teacher trainers in both primary and secondary settings.**

This thought-provoking book is both timely and relevant to addressing issues related to sustainability in schools and global issues linked to COP26.

**Helen Pipe, Head of Geography, Hartshill Academy (Midland Academies Trust)**

Dixon elegantly describes what it really means to be a leader with sustainability as one of your values.

**Dr David Preece, Head of Geography, Teach First**

Develops the reader's understanding of green issues and sustainability and sites them within the context of school leadership, learning, emotional intelligence, curriculum innovation and school improvement.

**Chris Straker, Director, consultant and trainer, Restorative Thinking Ltd**

An inspiring 'greenprint' for embedding sustainability throughout school communities.


**Dr Elizabeth Rushton, Associate Professor of Education, UCL Institute of Education**

David Dixon has given schools a way forward – a method of taking control at a local level and delivering, for students and their community, a practical way of making a difference.

**Dr Paul S. Ganderton, Principal Consultant, Paul Ganderton Consulting, educator and environmental scientist**



**Dr David Dixon** was a full-time primary teacher for 15 years before becoming a head teacher for the following two decades. In that time, he promoted the twin causes of environmental education and sustainability, which formed the central ethos of his schools. David is now a freelance education consultant, specialising in curriculum and leadership and helping individual schools to link sustainability with school improvement more generally.

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