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teach SECONDARY

Outstanding advice from the UK's top education experts

CATHY NEWMAN

"I had to learn to be a team player"

FACING JUDGEMENTS

What new Ofsted reports will mean for you

Too much info

The research teachers shouldn't be doing

The REAL drivers of pupil anxiety

AIDE-MÉMOIRE

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FROM THE EDITOR

"Welcome...

In any line of work, there will always be some level of tension between a need to respect tradition and precedent, and the necessity for things to always be progressing and moving forward.

Teaching is perhaps one of the sectors in which those tensions can be most keenly seen and felt. There's an expectation that teachers will pass on established foundational knowledge (possibly even '*The best that has been thought and said*', as someone once put it), while at the same being mindful of how the knowledge base underpinning those subjects, and research concerning certain types of practice (VAK, anyone?) can dramatically change and evolve over time.

And then there are those external developments that you might not be expecting, but which threaten to completely disrupt and potentially transform and your field beyond recognition. And there's surely no better example of that than the smartphone.

The news that Forge Valley School in Sheffield has enacted a comprehensive ban on all forms of smartphone use on its premises was widely reported, with broadly positive comments from students – appreciative of how the ban had brought about more inter-peer socialising – alongside perhaps understandable misgivings from parents, keen for their children to have an easy way of contacting them when en route to and from school.

The outsized role that smartphones have come to play in teenagers' lives warrants close examination. Because when we, the adult members of the society we're so keen for students to one day contribute to, have collectively allowed so much of what used to be the teenage experience to be mediated by Apple, Samsung, Google, *et al*. (chatting with friends, consuming media, playing games, hanging out), well – why *wouldn't* teens spend every waking moment staring at their phones?

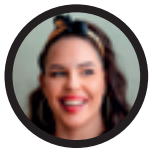
When it comes down to it, the behaviours nurtured by smartphone use are almost antithetical to the expectations and processes at play within the classroom. Learning is about perseverance, triumphing over setbacks and making it through with greater knowledge and/or skills at the end. Smartphones are deliberately designed to be endlessly compelling and pleasurable to use, the content of their apps shaped by inscrutable algorithms and insights gleaned from vast volumes of personal data. Outside of games and apps specifically designed for learning purposes, smartphones are all about maximising convenience and serving up frictionless entertainment, wherever and whenever.

Perhaps there was always going to be a reckoning between the demands placed on schools and the sociocultural impacts stemming from large-scale smartphone adoption, coupled with the economic incentives of app developers and platform holders. Perhaps we're seeing one now.

Enjoy the issue,

Callum Fauser
callum.fauser@theteachco.com

On board this issue:



Natasha Devon is a writer, broadcaster and campaigner

Michael Power is a headteacher

Alice Guile is a secondary school art teacher

Steve Brace is chief executive of the Geographical Association

Rebecca Leek is a primary and secondary teacher, SENCo, headteacher and MAT CEO

Kit Betts-Masters is a lead practitioner for science

KEEP IN TOUCH!
Sign up for the weekly TS newsletter at **teachwire.net/newsletter**

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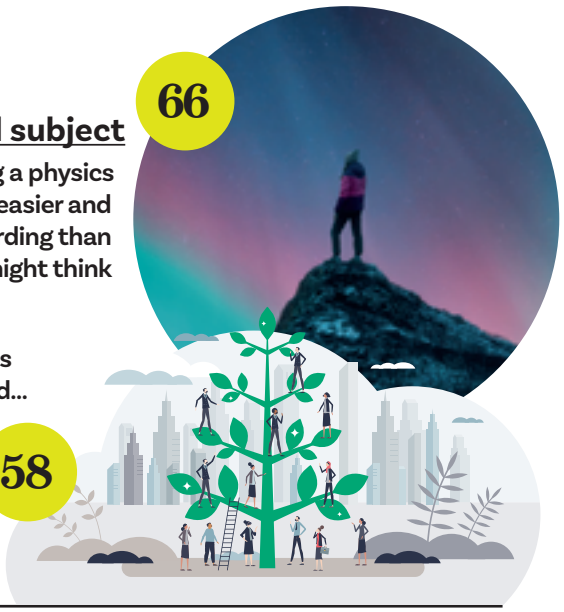
Why becoming a physics teacher is easier and more rewarding than you might think

32 **Banish burnout**
What to do when your students are hitting the revision too hard...

58 **Guardians of the future**
How tomorrow's challenges will require the talents of today's geographers



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teach SECONDARY

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Published by: Artichoke Media, Suites 2 & 4, Global House, Global Park, Eastgates, CO1 2TJ

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The newsletter

Teach Secondary's digest of the latest goings-on in the profession...

The UNINFORMED *teacher's guide to...*

PLAYSTATION 5 PRO

Your Y8s have been speaking about it in hushed whispers. That ECT with the trendy hair has been thinking about how many nights out they'll have to forego before they can afford one. One what? Why, one PlayStation 5 Pro, that's what.

For those leading lives that rarely intersect with the medium of interactive entertainment, the PlayStation 5 is Sony's latest video game console, and the market leader when it comes to the graphics-pushing state of the art (though the bestselling console overall remains Nintendo's comparatively underpowered, yet widely beloved Switch). Four years on from its initial release, Sony has now unveiled what's termed a 'mid-generation refresh' for the PS5 – a technically superior 'Pro' model that plays all the same games, but more smoothly, and at a higher fidelity.

Reactions from players and the press to the PS5 Pro's impending release, though, have been somewhat... mixed. Its superior graphical abilities will indeed ensure that games play at more consistent framerates and look even better. But PS5 games already look pretty great as it is. Those graphical improvements will require super whizzy TVs to really be felt – and it'll cost you extra over the £699(!!!) retail price for a separately sold external drive before it can play PS5 games off discs bought from shops, rather than download purchases alone.

That ECT with the trendy hair's still prepared to lead a monk-like existence in order to bag one, though...

DO SAY
"60fps with ray tracing? I'm in."

DON'T SAY
"Is this the Mario one?"

BEAT THE BUDGET

What are we talking about?
Pride Groups

Who is it for?
LGBT+ school and college students and allies

What's on offer?
Downloadable resources (icebreakers, posters, guides), online training and support to assist teachers with setting up a Pride Group within their school.

How might teachers use the resources?

Run by the charity Just Like Us, the Pride Group programme sees participating schools set up clubs for LGBT+ students and allies, so that school environments can be made safer and more supportive for LGBT+ students who are statistically more likely to experience bullying from peers.

Where is it available?
justlikeus.org

WHAT THEY SAID

"We would see children walking into school with their phones out, glued to their screens, and in lessons children were distracted. That is gone."

Dale Barrowclough, headteacher of Forge Valley School, speaking to BBC Radio Sheffield on the school's banning of smartphones, portable devices and headphones from its premises

Think of a number...

60%

of parents to children with SEND state that extra support from their school or LA would help them remain economically active

Source: Research carried out by the charity Support SEND Kids

25.2%
of UK teens report experiencing low life satisfaction
Source: 'Good Childhood Report' 2024 produced by The Children's Society

42%
of 8- to 18-year-olds feel apprehensive about moving into a new school year
Source: Censuswide survey of 3,004 parents commissioned by Bupa

86%
of parents cite cost as the reason for their child not having access to a laptop
Source: Survey by the Digital Poverty Alliance

ONE FOR THE WALL

"Creativity is the power to reject the past, to change the status quo and to seek new potential"

Ai Weiwei

Recruiting Gen Z

As the members of Generation Z begin to enter the workforce, the education charity Teach First and policy consultancy Public First have co-produced a report into what motivates the career choices of those born in the mid to late 90s, and what incentives may succeed in persuading capable graduates to enter the teaching profession.

According to the 'Tomorrow's teachers' report, 56% of 'Gen Z' chiefly prioritise a good work-life balance when seeking employment, with the next two most popular criteria being a 'high long-term salary' (47%) and 'Interesting and engaging work (46%).

And what does this group currently make of the teaching profession? Among those surveyed, the word they most readily associated with teaching was 'stressful' (by 55%), then 'rewarding' (48%) and 'difficult' (45%). On a more heartening note, 73% of respondents recognised teaching as a 'job that had purpose'.

So, what will it take to actually get them applying for those PGCE courses? One thing that certainly *dissuades* many is the starting salary, with 71% of respondents reasoning that it would be easier to earn more in a different sector. From potential incentives suggested to respondents, the most popular by far was a starting salary of £40,000 (ranked top by 50%). Some more esoteric proposals further down the list included 13 weeks of holiday spread across the year in 2-week blocks (chosen by 22%) student loan forgiveness after 10 years of teaching at a low income school (preferred by 14%) and no requirement to perform marking (prized by 11%).

SPEECHES AND CORRESPONDENCE

Forget the media-friendly soundbites – what else was in those announcements and letters you missed?

THE SPEECH:

Education Secretary addresses the 2024 Labour Party Conference

WHO? Bridget Phillipson, Secretary of State for Education
WHERE? ACC Liverpool Kings Dock, Liverpool
WHEN? 25th September 2024

"We have always known that bringing up the next generation doesn't start and stop at the school gate. Conference, across education, I hear a story told time and again. Of staff in our nurseries and schools, in our colleges and universities, going above and beyond so often. Who stepped in when the services around them frayed and failed.

School staff ending up as both maths teacher and mental health counsellor. College staff helping with benefits, as well as BTECs.

I want to put on record my thanks, our thanks, Labour's thanks, to everyone who works in education across our country. You deserve a government that works with you, to deliver the change our children need.

And I am here today to tell you that we are that government, that we will work with you and your unions, that the change has already begun.

In just 12 weeks we have begun the hard work of reform. We have already brought an end to one-word Ofsted judgments in our schools,once and for all. Today, the Curriculum and Assessment Review begins a national conversation, to ensure that a rich and broad education – the start that every parent wants for their children – is the experience of the many, not the privilege of a few.

In less than 100 days we will end private schools' tax breaks. To drive high and rising standards for the nine in 10 children who go to state schools. We will focus apprenticeships once more on young people, to set them up to succeed.

We have turned government to the work of tackling child poverty once again, because it is the purpose of our Party, above all others – it is my purpose – to ensure that no child, *no child*, grows up in poverty in modern Britain."

THE RESPONSE:

NEU comments on projected pupil numbers

FROM? Daniel Kebede, General Secretary of the National Education Union
REGARDING? Pupil projections by the National Foundation for Education Research, highlighting a future fall in primary pupil numbers
WHEN? 25th September 2024

"Currently, there is no mechanism to plan school places for a local area. Labour need to put this in place to ensure that we do not close far too many schools which will be needed when the birth rate increases again. The present system, with academies being able to take decisions on their own, is not rational or fair – and hinders the work of local authorities."

SAVE THE DATE

19-20 OCTOBER 2024 Battle of Ideas Festival | 13 NOVEMBER 2024 The Education People Show | 20 NOVEMBER 2024 Schools & Academies Show

19-20 OCTOBER 2024

Battle of Ideas Festival
Wellington College, Crowthorne
battleofideas.org.uk

Fans of robust debate, and those with trenchant views they'd like to get off their chest, will find lots to chew on at this year's Battle of Ideas, where a vast spread of topics – women's rights, AI, mental health and disinformation among them – will be subject to impassioned discussion. Secondary pupils can attend one of the days for free, or both for a discounted £10.

13 NOVEMBER 2024

The Education People Show
Kent Event Centre, Detling
theeducationpeopleshow.co.uk

Billed as the South East's 'Leading event for the promotion and development of effective school leadership, management, learning and teaching' and free to attend, those making the trip to Detling will get to participate in a series of workshops spanning an array of topics – from employment law and SEND provision to school finance. Proceedings then conclude with a keynote address by Beth Tweddle MBE.

20 NOVEMBER 2024

Schools & Academies Show
NEC Birmingham
schoolsandacademiesshow.co.uk

Back for another stint at the NEC is this fixture of the education events calendar, offering lots in the way of knowledge-sharing, advice sessions and inspiring keynotes. This year's event will be sharing exhibition space on the day with both the EdTech Summit and the Independent Schools Conference, making for more networking opportunities than ever before.

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TEACHER TALES

True stories from the education chalkface

TESTING, TESTING...

The headteacher was a commanding figure – and in an exceptionally bad mood on this occasion, after some students had behaved very badly in the local community the day before. During assembly in the main school hall, as he forcefully expressed his disapproval, you could have heard a pin drop. As he built to a crescendo, his voice rising, he said, "*I've just got one last thing to say...*"

...at which point, over the hall tannoy came the jovial voice of a gentleman who, at that precise moment, was testing the PA system: "*I'm H-A-P-P-Y, I'm H-A-P-P-Y,*" the letters spelt out individually. As staff and students struggled to contain themselves, the headteacher rushed out of the hall to confront the gentleman in question....

A left/right issue

I once stopped a Y7 boy wearing trainers at break time to ask him where his shoes were. He told me that having got home the previous day after a PE lesson, he found that he had two left shoes and was now going to PE to sort the issue.

30 seconds later I stopped a different boy, also wearing trainers, and hobbling. "*What's the problem?*" I enquired. "*I had PE yesterday, put my shoes on and came to school this morning – and it was agony,*" he replied. "*I was wearing two right shoes.*"

I gently led him to the other boy and said, "*I think you two need to talk...*"

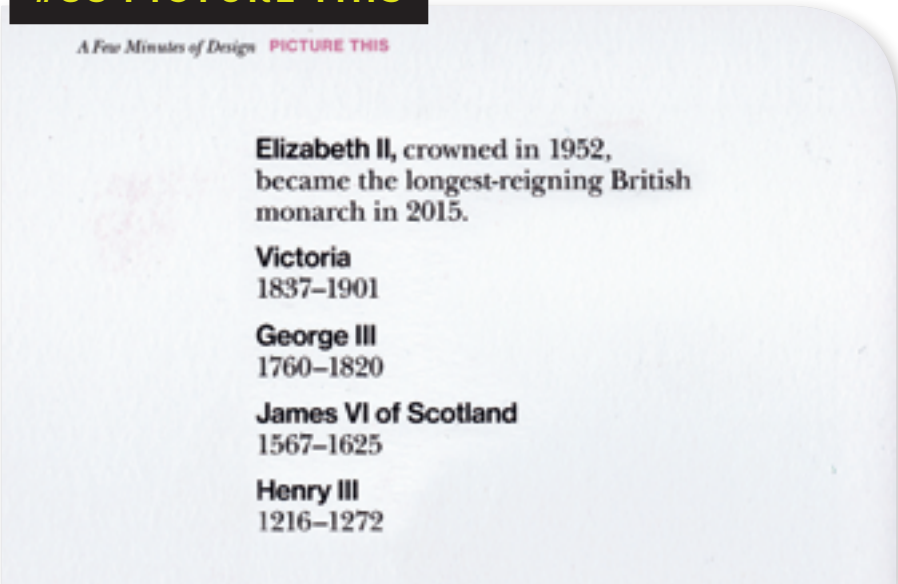
Have a memorable true school tale or anecdote of your own? Share the details, and find more amusing stories, at schoolhumour.co.uk

A FEW MINUTES OF DESIGN

Look at the information on the card below. How could it be understood at a glance?

Using pictures, symbols, shapes, lines and/or colours, as well as words or numbers – or instead of them – make the information clear and quick to understand.

#33 PICTURE THIS



Get Into Film

SUBMARINE (2010, 93 MINUTES, 15)

CURRICULUM LINKS:
Film studies, PSHE

15-year-old Welsh schoolboy Oliver Tate has two urgent objectives – to lose his virginity to fiery classmate Jordana, and to stop a New Age guru from running off with his mum. But as this quirky, British coming-of-age comedy deliciously illustrates, these things are easier said than done – because what goes on in Oliver's mind has little bearing on reality. Particularly since he's a duffle-coated social inadequate, rather than the coolly sophisticated hero he imagines himself to be...

The angst-filled struggles towards manhood that follow are hilarious and affecting, aided by brilliant performances and cracking dialogue. Nods to French New Wave cinema and other arty visual devices provide additional fun, while giving literal form to the self-absorbed drama playing out in Oliver's head.

Discussion questions:

- How did you feel towards Oliver at the start of the film, and how does his character develop?
- How is water used as a motif in different ways throughout the film?
- Why do so many coming-of-age movies focus on the theme of discovery? How does *Submarine* do this?

Head online to intofilm.org to stream this film for free and download the film guide containing Teacher's Notes; while there, look out for our Mental Wellbeing films and resources page at intofilm.org/mentalwellbeing

Retweets

Who's been saying what on Twitter this month?

Mr Pink @Positivteacha

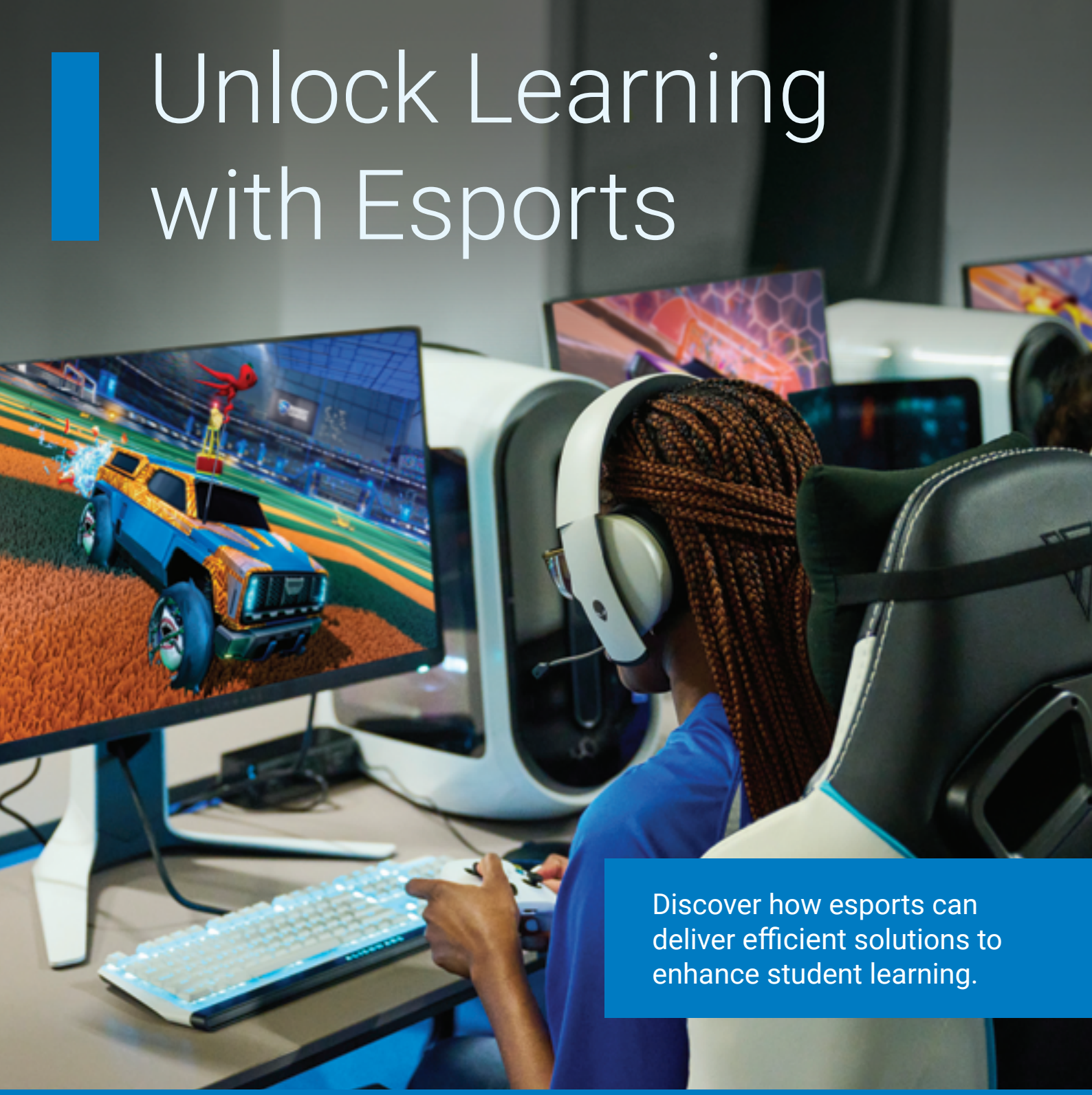
If I was headteacher (would never happen) I'd literally make it the job role of one my lot to challenge me. "*You're in charge of attendance, but also, whenever I argue an idea or philosophy, I want you to go away and form the counter-argument for me.*"

Adam Woodward @adamjames317

DSL training today and the question about TikTok influencers came up - filming chn (albeit just voices) is not okay and not acceptable use of a device during the school day. We should be reporting these people to their schools and conversations about the conduct should be had.

Follow us via @teachsecondary – and let us know what you're thinking

Unlock Learning with Esports



Discover how esports can deliver efficient solutions to enhance student learning.

Esports is more than just gaming – it's also a powerful tool for learning. Dell Technologies and Intel, in partnership with British Esports, offer students an engaging resource to develop teamwork, strategic thinking, and problem-solving abilities.

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POWER UP

Empower your classroom

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Need to know

With technology becoming ever more deeply integrated into education, the need for robust security measures in schools has never been more critical. State schools, in particular, must contend with tight budgets, limited IT resources and the growing demands of maintaining a secure learning environment.

Dell Technologies and Intel offer a range of security tools specifically designed to meet these challenges, helping schools with student safeguarding while maximising their investment in educational technology.

• **Multi-layered security:** Schools must choose security solutions that protect against a wide range of threats, from cyberattacks to data breaches. Dell's Trusted Workspace and Intel's vPro® platform deliver cost-effective, hardware-based security and advanced threat detection capabilities, so that sensitive student data remains secure.

• **Disruption management:** Managing classroom technology is not just about security; it's also about ensuring that students stay focused on learning. Dell's endpoint security and Intel Authenticate tools help teachers minimise distractions by restricting access to non-educational content, enabling schools to manage device usage efficiently, and reduce classroom disruptions caused by unauthorised apps or websites.

• **Cyberbullying mitigation:** With cyberbullying and peer pressure affecting students' wellbeing. Dell's SafeData and Intel Security Essentials provide data encryption and secure communication channels that help schools monitor and manage students' online interactions.

• **Privacy and security:** Protecting students' privacy is paramount. Dell SafeID and Intel® Hardware Shield provide robust identity protection and secure boot capabilities, ensuring student data remains confidential and protected from unauthorised access.

• **Scalable solutions:** Dell and Intel offer scalable security solutions that can be expanded over time, allowing schools to start with the basics and add more advanced features as their budget permits.

Next Generation

New technologies like Dell's SafeGuard and Intel's vPro platform outshine older systems, with advanced security features such as hardware-based threat detection and remote management. These enhancements provide seamless, automated protection, thus reducing the need for manual intervention, while keeping your school's technology infrastructure at the cutting edge.

DELL Technologies intel

Contact:
Visit Dell's dedicated webpage to explore how these solutions can help your school maintain a secure and effective learning environment.

TECH TALK

Dell SafeGuard and Response combine SafeBIOS and SafeID to deliver robust hardware-level security, effectively preventing firmware attacks and safeguarding user identities through advanced encryption. Complementing this, Dell SafeData provides comprehensive protection for the secure storage and transfer of sensitive information.

Remote protection

Intel's vPro platform enhances security further with its Hardware Shield, designed to protect firmware, and Active Management Technology (AMT), which allows for remote diagnostics and recovery. These features empower IT administrators to manage devices securely and efficiently, even in large and dispersed educational environments.

Smart security

The Intel Threat Detection Technology (TDT) leverages machine learning to detect ransomware and other sophisticated threats, adding an extra layer of defence. Together, these technologies strengthen security, while also improving the overall user experience, making sure devices operate smoothly and securely, minimising downtime and creating a safer, more focused learning environment.

Is it time for a reset?

Alex Standish ponders whether schools might need a reset if they're to accommodate the needs of what some have dubbed the 'Anxious Generation'...

The rapid decline in teenage mental health over the past 15 years is the subject of the latest book by American psychologist Jonathan Haidt. In *The Anxious Generation,* Haidt argues that rates of depression, anxiety, self-harm, loneliness and suicide have grown exponentially in Anglosphere countries (USA, Canada, UK, New Zealand and Australia) due to a 'rewiring' of childhood.

Working in teacher education in London, it's been impossible not to notice an increase in the incidence of mental health issues that young people bring with them, or experience as they're training to teach in schools. Anxiety, in particular, rather than being accepted as part of learning how to do a challenging job, is now cited by some in talk around '*Needing to work on my mental health.*'

A generation inhibited

Haidt makes a direct link between the rise in mental health problems and growth of smartphone usage among teens from 2010 onwards. His book has thus become something of a launchpad for phone-free schools over the summer. However, the book is about much more than just the effects of smartphones and social media; it also points towards wider cultural changes that have been inhibiting the social and intellectual development of Generation Z (roughly speaking, those born after 1995).

Haidt's thesis is that teens are over-protected in the real-world and under-protected online, hence their childhood having been rewired. He describes a growing culture of 'safety-ism', whereby adults are reluctant to 'let go' of children, challenge them and let them fail. Increasingly, he argues, adults mollycoddle children, denying them freedom and space to roam, take risks, make mistakes and learn from those mistakes.

He also includes graphs to illustrate a long-term decline in unstructured social time spent by teens with friends outside of school – a trend Haidt traces back to the 1980s when people first began expanding the use of concepts like 'addiction', 'trauma', 'abuse' and 'safety' into new areas ('emotional safety', rather than simply 'physical safety', for example).

Among the texts Haidt cites is the 2010 book *Paranoid Parenting* by British sociologist Frank Furedi, which traced changes to parenting practices in the 1990s – such as not letting children walk or cycle to school independently – to declines in adult solidarity and trust within communities.

Foundational harms

It was around this time that the term 'helicopter parents' (describing hyper-attentive, borderline controlling elders) started to 'take off'. Teachers who have been around a bit may recall schools cancelling field trips, competitive sport fixtures and even games of conkers because they were perceived by some teachers and parents as being 'too risky' for pupils.

Against this backdrop of increasing safety-ism, however, teens have been presented with a largely unregulated online world via home computers, and latterly smartphones and tablets. In his book, Haidt includes an account by a 14-year-old girl hailing from Rhode Island, who shares the story of how she first encountered online porn age at the age of 10, before it then became regular viewing for her and a friend: "*Where was my mother? In the next room, making sure I was eating nine differently coloured fruits and vegetables on the daily.*"

> **"Against a backdrop of increasing 'safety-ism', teens have been presented with a largely unregulated online world"**

Haidt holds smartphones as being responsible for four 'foundational harms' currently affecting young people: the inhibiting of their social development; their increased exposure to sleep deprivation; constant interruptions disrupting their ability to maintain attention and focus; and the fostering of addictive behaviours, stemming from how smartphones and apps are intentionally designed.

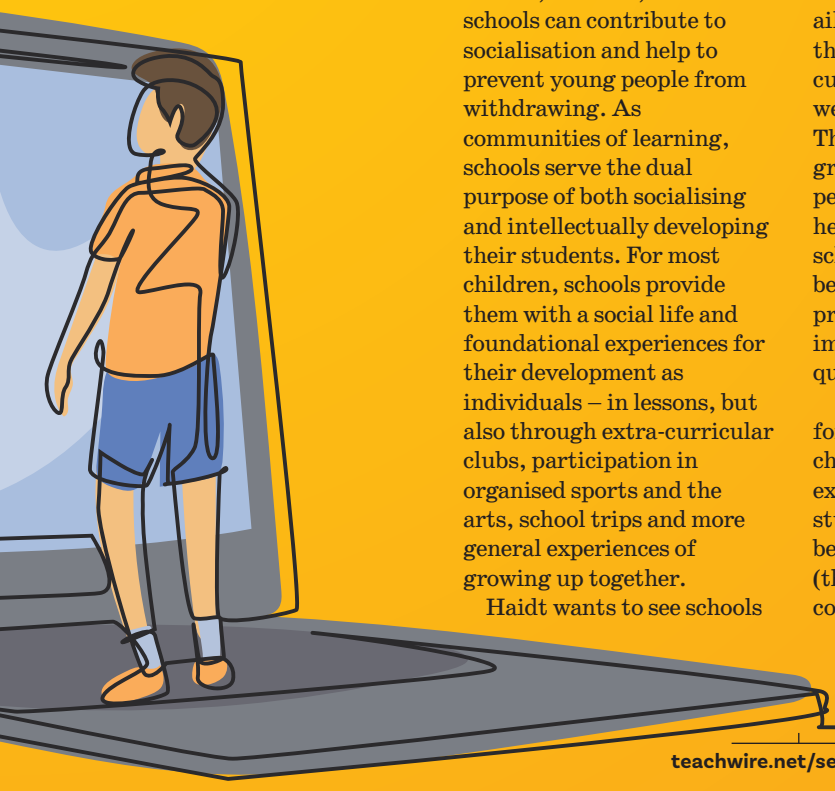
Across two chapters exploring how internet usage and smartphones affect girls and boys differently, Haidt finds that girls make more extensive use of social media, while boys typically withdraw more into online gaming. He concludes that social media is more harmful to girls – in part because they naturally lean more towards visual social comparisons and the managing of friendship groups. Gaming meanwhile takes boys away from meeting up with friends, but also away from the risk-taking and delinquency that this can sometimes entail.

Illusory images

Drawing on the work of French sociologist Émile Durkheim, Haidt reaches what I'd suggest is the nub of the problem – the tendency for young people to withdraw inwards, restricting their ability to engage socially and form a sense of rootedness within human communities.

A key concept for Durkheim was 'anomie'; the absence of stable and widely shared norms, which tends to occur when individuals are deprived of social orders based on objective foundations. As long ago as 1897, Durkheim observed how *"All that remains is an artificial combination of illusory images, a phantasmagoria vanishing at the least reflection; that is, nothing which can be goal for our action."* A description that could just as easily apply to smartphone scrolling in the 2020s.

To back up his claims, Haidt points to further data showing an increase (from 2010) in American girls and boys reporting that '*Life often feels meaningless*' – though we could add the caveat that such sentiments are hardly uncommon during adolescence.



"They are less able than any generation in history to put down roots in real-world communities populated by known individuals who will still be there a year later," suggests Haidt. *"It is very difficult to construct a meaningful life on one's own, drifting through multiple disembodied networks."*

Instead, he ventures, young people need community, structure and purpose to thrive: *"People don't get depressed when they face threats collectively; they get depressed when they feel isolated, lonely or useless.'* Haidt reasons. (See also the lockdown experiences of young people during the COVID-19 pandemic – likely a contributing factor to current behaviour patterns of withdrawal and isolation).

The profane and the sacred

Émile Durkheim's work is perhaps most helpful in the distinctions he made between the profane (everyday) and sacred realms. He showed that nearly all societies had rituals and practices for pulling people *up,* into a realm where collective interests are asserted and self-interest recedes.

Here, I believe, is where schools can contribute to socialisation and help to prevent young people from withdrawing. As communities of learning, schools serve the dual purpose of both socialising and intellectually developing their students. For most children, schools provide them with a social life and foundational experiences for their development as individuals – in lessons, but also through extra-curricular clubs, participation in organised sports and the arts, school trips and more general experiences of growing up together.

Haidt wants to see schools that are phone-free, and which offer more opportunities for independence and growth, including free play. Yet while these are helpful suggestions, my own emphasis would be on the academic curriculum, as this is the sacred realm which defines a school.

A better antitode

Through the curriculum, teachers induct children into the knowledge, values, skills, dispositions and culture associated with scholarship. By introducing them to realms of knowledge in science, the arts, languages, philosophy and humanities, teachers 'pull' students up into an objective (sacred) world of knowledge where they're forced to consider significant questions about time, space, culture, humanity, beauty, morality, justice, belief, belonging, nation, migration and truth.

We shouldn't counterpose this objective world as being in opposition to the self, but rather as *transformative of individuals;* it opens up possibilities for young people to develop themselves, lead flourishing lives and make positive contributions to society.

I would argue that this is a far better antidote to what ails the Anxious Generation than a therapeutic curriculum focused on wellbeing and mental health. That's not to downplay the growing number of young people with serious mental health conditions, for which schools and parents require better access to mental health professionals, rather than imagining that teachers are qualified to address them.

The reset I'd like to see is for greater intellectual challenge, and raised expectations of what all students are capable of, beyond the passing of exams (though qualifications do, of course, matter).

IN BRIEF

What's the issue?
Researchers and experts have identified advances in technology and changing parental attitudes as the key drivers for a widely perceived growth in rates of anxiety among teenagers.

What's being said?
Social media, online pornography and video games have been blamed for pulling young people out of shared physical spaces that previous generations used for socialising, risk-taking and building resilience.

What's really happening?
These concerns are valid, but do little to promote the importance of the collective good, and the necessity of keeping our self-interest in check – both of which would go some way towards tackling youth anxieties.

The takeaway
Schools have a key role to play in helping students navigate the challenges of their modern cultural environment and fully realise what they're capable of.

JOIN THE CONVERSATION
The Academy of Ideas Education Forum gathers monthly to discuss trends in educational policy, theory and practice. Find out more at **academyofideas.org.uk/education-forum**

ABOUT THE AUTHOR
Dr Alex Standish is Associate Professor of Geography Education, UCL Institute of Education, Knowledge and Curriculum book series editor at UCL Press and co-editor of *What Should Schools Teach? Disciplines, Subjects and the Pursuit of Truth.*

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WHAT I LEARNT AT SCHOOL

As a diligent student of music, **Cathy Newman's** schooldays involved a fair amount of single-mindedness – along with some very early mornings...

I went a local primary called in Godalming, Surrey – just a very ordinary school that I walked to every day. I remember being reasonably happy there, but I was quite an early reader, and they insisted I learn the basics, rather than letting me read whichever books I wanted, which was a bit frustrating.

I later transferred to an all-girls private school, which I didn't like. Girls together can be quite catty at that age, and having come from a mixed state school, it was a big culture shift. The families of the other girls there seemed very 'stockbroker belt', whereas my parents were both teachers, so I felt a bit like a fish out of water.

Being the best

I then got a scholarship to Charterhouse, where my dad was a teacher. Our family didn't pay a penny, so I felt I was receiving this hugely privileged education I should be grateful for, but I wasn't very happy there, either.

I was quite a quite a nerdy kid, with big, heavy NHS specs. Music was my refuge. The one thing I loved about Charterhouse was the music department, which had an incredible chapel, an amazing choir and a brilliant orchestra. Those, along with the theatre, were the highlights of my time there.

I was a total swot in lessons – really driven, determined to ace every lesson and very competitive. I'm making myself sound quite obnoxious, aren't I? But I just wanted to do really well at school, and was focused on being the best I could be.

I didn't have many friends. Other girls see someone being a bit keen, and that's pretty easy to make fun of. Even now, I'd much rather do my own thing and go my own way. I had to learn how to be a team player.

Individual and quirky

My interest in music first developed when I four, after I contracted chicken pox and my dad borrowed a spare violin from a music teacher to keep me entertained at home, and I ended up getting really into it.

I soon became completely immersed, and started regularly attending the Pro Corda music course held at Leiston Abbey in Suffolk from when I was 7 until around 15. The other kids on the course often weren't that good at fitting in at school either, and were typically quite individual and a bit quirky, so we all got on really well together.

As a teenager, I then had violin lessons with Dona Lee Croft – this incredible Texan violinist who was the most phenomenal teacher. She had a way of changing everything I'd learned about the violin up to then and taking me back to basics, which helped me come on in leaps and bounds.

Around this time I'd be doing three and a half hours of violin practise every evening, and getting up at 5:30am every morning to do my homework before leaving for school. I didn't need much sleep, (and still don't need that much now).

Threadbare provision

I wanted to be a violinist until the age of 16, which was when I saw Kate Adie on TV reporting from the 1991 Gulf War and thought, '*Wow, that's a really interesting job – I want to be a war reporter.*' After I set my sights on becoming a journalist, aside from occasional friends' weddings I barely played the violin at all – though I did take it up again quite recently, after forming a string quartet with other people working in and around Parliament.

I now have two kids myself, both of whom play the violin and do plenty of music. They attended a local London state school, but also joined the Junior Guildhall Saturday School, where the vast majority of their peers were privately educated.

Seeing the music provision at local state schools in recent years, I've come to realise just how threadbare it is. If you go to a fee paying school, you get a pretty good musical experience that's simply not accessible to the vast majority of kids.

That's what the Music Makers' Charter is all about – a belief that there should be more investment into widening access to music for people of all backgrounds, and some recognition of the benefits doing that would bring.

I feel passionately that more people should have the same opportunities to engage with music that I had.

Cathy Newman is a journalist, broadcaster, presenter of *Channel 4 News* and a supporter of the Music Makers' Charter campaign organised by the education charity Music for All; for more information, visit musicforall.org.uk/music-makers-charter

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David Voisin is a head of MFL

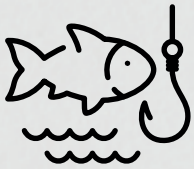
DICTIONARY DEEP DIVE

Join **David Voisin** on a rich, and sometimes surprising journey through the points at which literacy, language and vocabulary intersect...

PARDON MY FRENCH

Having both Germanic and Latin roots, it's often the case that Tier 2 words in English stem from Tier 1 words in French. One such word is the adjective 'maladroit', which can be employed for someone who has made a social '*faux pas*' (wrong step). In French, it simply means 'clumsy' or, literally, 'not straight' or 'bad on the right'. '*Droit*' is the French translation of the English word 'right' (meaning 'straight', 'legal right', or 'opposed to left') and is found in the motto of the British Monarchy: '*Dieu et mon Droit*'. It's therefore interesting to notice that a synonym of 'maladroit' is the word '*gauche*', which itself is the French for the direction 'left'.

TEACHING TIP: GIVE A MAN A FISH...



Teach pupils a word and they'll have one new entry to add to their lexicon. Teach them etymological roots and morphology, and they'll have access to dozens of related words.

Roots can be taught both explicitly and in isolation. My suggestion would be to introduce a particular root – such as 'Tri' – and give examples (triplets, tricycle, trident...), before then asking students to identify the meaning of the root. For a given meaning, make sure you explore other morphological variations (develop / developing / development / under-developed, etc...). Ask pupils to come up with definitions, examples and non-examples within sentences.

As with anything, the sequencing of lessons is very important, since new roots can be featured alongside roots already covered (e.g. aqua/duct, exo/thermic, bio/sphere...). One fun game could be to give learners a picture shown alongside its root, dominoes-style, and ask them to guess the word.

'Fill in the gaps' activities can work well, too. For instance, take five directive context sentences around one root, or around five different root words, with the roots between brackets as a clue. The beauty of etymological roots is that they work across many languages.

LANGUAGE AND LINGUISTICS

In the sitcom *The Big Bang Theory*, the character of Sheldon is depicted as being a genius with an acute aversion to sentences ending in prepositions. However, such dislike isn't a mark of grammatical knowledge – in fact, it's quite the opposite.

Language can be subdivided into rules, usage conventions and superstitions (or shibboleths). In this particular case we're dealing with the latter, but that's not to say that prepositions aren't interesting. There are many in English – over 10 starting with 'A'. They belong to the 'closed class', as new prepositions can't be created.

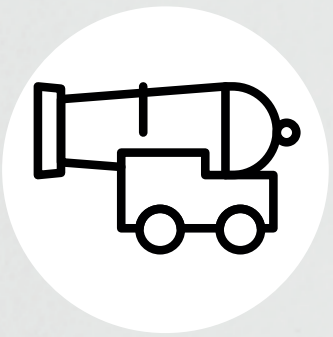
Prepositions can be single or complex (and can comprise more than one word, such as 'on top of'. As their name indicates, they often have a spatial connotation.

Present in many metaphors, such as 'convey across', they testify to the fact that spatial cognition predates verbal ability. When linked to a verb (phrasal verbs), some of these words cease qualifying as 'prepositions' and instead become 'particles' ('get up', 'give away'...). Prepositions can, however, be attached to phrasal verbs, as in 'To put up with' – perhaps best illustrated by Winston Churchill' s iconic quote, "*Ending a sentence with a preposition is something up with which I will not put.*"

SAME ROOT, DIFFERENT WORDS

The **dec**athlon consists of 10 sporting events; a **dec**ade is a 10-year period

In maths, a **dec**agon has 10 sides; a **dec**imetre is a tenth of a metre



December used to be the 10th month in the old calendar; the verb '**dec**imate' once meant '*Kill every tenth man*'...

REASONS TO TRY...

5 Academy21 for medical needs

Find out how, thanks to Academy21, sudden changes in a student's lifestyle due to unforeseen health complications needn't derail their learning

30 SECOND BRIEFING

Academy21 enables students with medical conditions to access high-quality, flexible education. One student, Holly, joined us after missing most of Y10/11 due to a severe heart and lung condition; she went on to achieve incredible GCSE grades this year and enrolled into her preferred college.

1 UNDERSTANDING AND EMPATHY

The Academy21 team understands the challenges students with medical conditions face in keeping up with their studies. In these turbulent times, nothing is more important than to feel valued, understood and cared for – and that is what each one of our teachers and staff strives to provide. We recognise that many students with medical conditions are highly motivated, and would dearly love to attend school but can't, so we offer a high-quality education tailored to their schedule – putting their medical needs and recovery at the forefront.

2 SCALABLE CAPACITY AND ADAPTABLE PLANS

Because we are a fully online alternative provision specialist, Academy21 can accommodate any number of students when schools or local authorities require it. This means you can always count on us to provide high-quality education and personalised support for your students. Our flexible plans also enable you to scale provision up and down, depending on students' needs, making it highly adaptive for those with medical conditions. If students are gradually recovering, they can start to attend some classes in their school.

3 FLEXIBLE LEARNING ENVIRONMENT

We provide a flexible environment that accommodates students' schedules, including doctors' appointments and urgent commitments, to reduce stress and facilitate a healthier school-life balance. With options for live and recorded lessons, students can learn at their own pace and on their schedule. "*If she had a doctor's appointment, we didn't have to ring in and speak to the teachers; she could simply watch the recordings,*" notes Holly's mother, Tina. Being 100% online, Academy21 also enables students to access classes anywhere, be it from their home or a healthcare facility.

Academy 21

Contact:
0800 208 8210 | info@academy21.co.uk | academy21.co.uk

4 EXPERT SUPPORT

Aside from our comprehensive curriculum for Key Stages 3 and 4 (and Key Stages 2 to 5 via our sister school, King's InterHigh, which was the right choice for Holly), we offer a range of academic and wellbeing support courses that can help students with medical conditions. For example, our wellbeing mentoring sessions can guide students in navigating challenges and sustaining their overall wellbeing, while our anxiety management courses can help students develop a positive mindset. Our dedicated SEN team works closely with schools to ensure students receive the right level of support.

5 INCLUSIVE RESOURCES AND TECHNOLOGY

We offer tools that cater to diverse needs, like our own InspiredAI and class recordings. Plus, our chat functionalities enable students to participate in class on their own terms. All of this helps students to recover their learning gaps caused by illness, and still achieve their desired outcomes. "*It was a lifeline for us. She was two years behind, and she was able to do her GCSE and go to college,*" shares Tina. Students may even join us for Year 11, and be able to catch up and complete their GCSEs.

Key Points

All of our live lessons are recorded to fit around medical appointments. "*It was so flexible for her. She was able to contact teachers, and everyone was brilliant,*" says Tina.

We can enrol students in as little as two days, so that students can continue their education even if health conditions deteriorate, or they require urgent treatment.

You can scale our provision up or down as requirements change, to accommodate differing medical needs while ensuring students can still close those learning gaps.

We offer an inclusive and understanding environment, with our expert team always on-hand to provide dedicated support for those with medical conditions.

After the appalling scenes of violence seen across the country this summer, we should pay close attention to the warnings from a growing number of educators about the spread of right-leaning disaffection among school pupils

Melissa Benn

With the autumn term now well under way, a number of teachers and school leaders will still be thinking hard about how to respond to the ugly scenes that played out across our nation's streets and town centres in late July and early August.

Many will be acutely aware of the results of some school mock elections organised before this year's General Election, with Reform sometimes topping the pupil poll or coming in a substantive second. These confirm the uncomfortable truth that many young people – particularly those in areas where right wing populism has taken root – are taking up the mantle of anti-migrant rhetoric.

Unfiltered discourse

As the disturbances were raging, Sammy Wright, a headteacher in Sunderland, posted an extract on X from his just published book *Exam Nation* – the surprise ed lit hit of the summer, which seemed to eerily predict some of the terrifying attitudes on display.

Wright posted, "*If you want an unfiltered version of public discourse on this subject, spend some time in the classroom. You will hear comments made explicitly that even the Daily Mail would only hint at darkly; about how refugees are rapists and Black people are 'given priority'.*"

But, Wright continued, "*You'll also hear a quieter and much more heartening consensus, where teachers listen to and guide the attitudes of the students in their care.*"

For Vic Goddard, CEO of the Passmores Cooperative Learning Community in Essex, the mock election results prompted him to consider some important questions – particularly in the light of Labour's pledge to lower the voting age to 16 (see bit.ly/ts137-MB1).

At Goddard's school, Labour won the most votes, with Reform coming second and the Greens third. The results mirrored a national *Daily Mail* poll which further uncovered an interesting gender difference. Reform placed a strong second among 16- to 17-year-old males, but polled much lower among adolescent girls, with only 12% of that group favouring Farage's party.

Community cohesion

That's perhaps not surprising, given Reform's deliberate appeals to a form of aggressive masculinity and supposed white British hostility to incomers. But the question for everyone working in schools is, '*What to do now*?' How should we tackle the rise of populism among some adolescents?

Goddard offers two suggestions – the first being better citizenship education, and the second, bringing more efforts to bear on creating greater community cohesion. Both are ideas firmly associated with the New Labour years, as I found when reading an action guide first published in 2004 by the Local Government Association, following widespread rioting across northern cities in 2001 (see bit.ly/ts137-MB2).

The early 21st century, of course, really was a different country, with New Labour governing a pre-crash, pre-austerity, pre-Brexit, pre-pandemic, pre-energy crisis UK – yet two things about the document really struck me. Firstly, there's the startlingly deep assumption that local authorities could be capable of funding and promoting positive change, including through largely now absent youth services.

Secondly, it's sobering to observe how utterly different the world was before social media. Today's schools have to deal with the behavioural impacts of malign influencers such as Andrew Tate and Tommy Robinson, as well as the growing presence of a populist right whose representatives now sit in Parliament.

Hard truths

Goddard recognises both the explosive messaging alchemy of TikTok, and the continuing socioeconomic crisis that has left so many families with the sense that their lives won't improve, and that it's the outsiders who must be blamed.

It may be a small move, but a placing a renewed emphasis on citizenship education will at least allow both teachers and pupils to challenge anyone amplifying inaccurate and distorted information at home, on the streets or via the internet.

Fostering community cohesion is an altogether tougher, much more ambiguous ask. Yet the hard truth remains that schools are among the few civic institutions that have survived the last 20 years while managing the daily impacts of continuing conflict, particularly in deprived communities. Just as we did during the pandemic and have done amid the continuing cost of living crisis, we still look to them manage the fallout of a nation that has, in so many respects, lost its way.

Melissa Benn (@Melissa_Benn) is the author of *Life Lessons: The Case for a National Education Service*, and is a Visiting Professor at York St John university

5 REASONS TO TRY...

The Raspberry Pi Foundation's Code Editor

Introduce your students to text-based coding with the help of the Raspberry Pi Foundation's online Code Editor

30 SECOND BRIEFING

Tailored specifically to young people's needs, the Raspberry Pi Foundation's Code Editor helps make learning text-based programming simple and accessible for children aged 9 and up. It's safe, age-appropriate, and suitable for use in the classroom through Code Editor for Education.

1 DESIGNED FOR LEARNERS

Created with input from educators, the Raspberry Pi Foundation's Code Editor is a free online tool specifically designed to help young people learn text-based programming. The integrated development environment (IDE) is designed for learning, rather than for professional use, and is informed by our understanding of pedagogy and computing education.

2 SIMPLE CLASSROOM MANAGEMENT

We've kept the educator interface clean, simple and easy to use. Schools can sign up for a free account, and once verified, can invite teachers to join, add students, organise students into classes and help students reset their passwords quickly. Educators can create coding projects to share with students and view their work.

We've added these teaching features to the Code Editor because one of the key problems we've seen educators face over recent months has been the lack of a suitable tool for teaching text-based coding in the classroom. While some options are available, the cost of these for schools can be prohibitive.

3 CREATE ENGAGING CODING LESSONS

Educators can create custom coding projects for students to work on. They can help students code their own games and art using Python, or design websites in HTML/CSS/JavaScript. Students themselves can get creative using code from our choice of Python libraries. Accessibility is important to us, so we've made it easy to switch settings between light and dark modes, and between small, medium and large text sizes, while also continuing to optimise the Editor for mobile and tablet use.

Contact:
raspberrypi.org

4 SAFE AND PRIVATE BY DESIGN

We take safeguarding seriously, providing visibility of student work at all times, as well as features such as the ability to report a concern. In accordance with best-practice codes protecting children online, we minimise data capture so that we have just enough to keep students safe. Further additional features are only made available once we have ensured they comply with our safeguarding policies and with the age-appropriate design code of the UK's Information Commissioner's Office.

5 ALL FEATURES TOTALLY FREE

The Code Editor can be accessed from a web browser without having to install any additional software, and we will always provide the Code Editor and its full feature set to educators and students for free. School accounts allow for an unlimited number of projects, lessons, teachers and students to be added.

Register now for a school account at rpf.io/code-editor-teach.

What teachers say

"My Year 8 students used the Code Editor for their Python projects and loved it"

"The fact that it is both for HTML/CSS and then Python is great, as the students now have a one-stop shop for IDEs"

"This looks fantastic and is just what we need - I'm looking forward to exploring this and integrating it into my lesson planning"

"I used the Code Editor with my computer science students... and it worked a dream! Students were able to write and run code without any issues"

[MATHS PROBLEM]

ADDING AND SUBTRACTING NUMBERS IN STANDARD FORM

Numbers written in standard form can be confusing for students to add or subtract, says **Colin Foster**

In this lesson, students explore alternative ways of adding and subtracting numbers written in standard form

THE DIFFICULTY

Which of these numbers is in standard form and which isn't? How can you tell?

2.1×10^4 and 37×10^4

The first number is in standard form, because it's of the form $a \times 10^n$, where $1 \leq a < 10$ and n is an integer. The second number ***isn't*** in standard form, because $37 > 10$.

How would you write 37×10^4 in standard form?

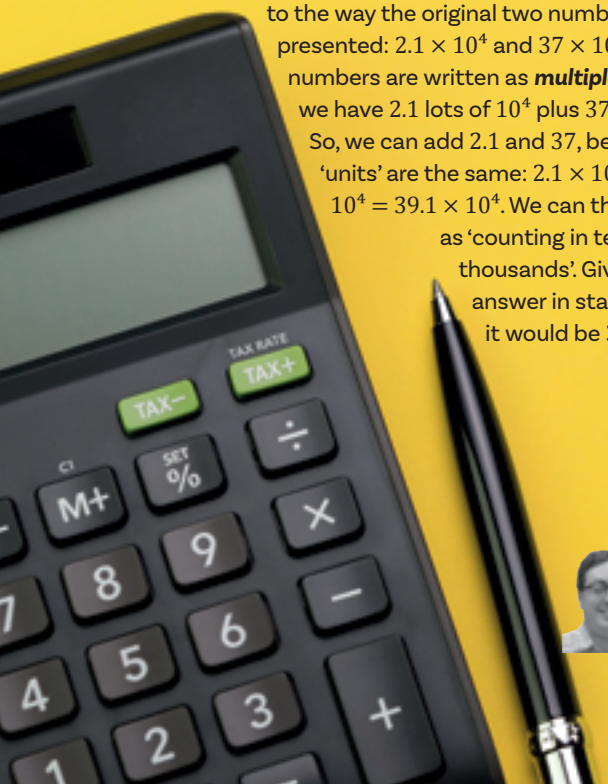
In standard form, this number would be 3.7×10^5. The 37 has been ***divided*** by 10 and the 10^4 has been ***multiplied*** by 10, making 10^5, so the ***product*** is unchanged. We can imagine a factor of 10 leaving the 37 to join the 10^4.

*How would you **add up** these two numbers?*

Students may be unsure, or they may suggest wrong answers, such as 5.8×10^5 or 5.8×10^{10}.

THE SOLUTION

It's easier to see the answer to this question if we go back to the way the original two numbers were presented: 2.1×10^4 and 37×10^4. Both numbers are written as ***multiples of 10^4***: we have 2.1 lots of 10^4 plus 37 lots of 10^4. So, we can add 2.1 and 37, because the 'units' are the same: $2.1 \times 10^4 + 37 \times 10^4 = 39.1 \times 10^4$. We can think of this as 'counting in ten thousands'. Giving the answer in standard form, it would be 3.91×10^5.



How could you do this by 'counting in hundred thousands' instead of by 'counting in ten thousands'?

We could write both numbers as multiples of 10^5:

$2.1 \times 10^4 + 3.7 \times 10^5 = 0.21 \times 10^5 + 3.7 \times 10^5 = 3.91 \times 10^5$.

Get students to explain what's happened here.

Which way do you think is easier? Why?

*Make up five examples of additions like this. Solve them in **both ways** (i.e. by making the powers of 10 match in **two different ways**, like this).*

*Students may see an analogy with finding **common denominators** when adding fractions. In both cases, we need to find a 'common unit' before we can add.*

*How would you work out the **difference** between the two numbers that we started with?*

The process is almost identical. To find the difference, we first need to decide which number is larger, and then subtract the smaller number from this: 37×10^4 is greater than 2.1×10^4, so we calculate $37 \times 10^4 - 2.1 \times 10^4 = 34.9 \times 10^4 = 3.49 \times 10^5$. Alternatively, in 10^5s, we have $3.7 \times 10^5 - 0.21 \times 10^5 = 3.49 \times 10^5$.

Checking for understanding

*How would you find the **sum** and the **difference** of these two numbers?*

2.1×10^3 and 37×10^5

What is different this time? The method is the same here, but the numbers happen to be further apart in size. This time, we can choose to work in units of 10^3, units of 10^5 or units of 10^6. However we do it, the sum comes to 3.7021×10^6 and the difference comes to 3.6979×10^6. Students should sense-check their answers by noting in advance that both answers must be 'around 4 million'.

Colin Foster (@colinfoster77) is a Reader in Mathematics Education in the Department of Mathematics Education at Loughborough University. He has written many books and articles for mathematics teachers. foster77.co.uk, blog.foster77.co.uk

CREATE CREATIVITY

Alice Guile explains how a pioneering psychological study can vividly show what happens to students' creative thinking abilities as they get older

Thanks to the rapid adoption of new technologies, we've all had to become used to living in a world characterised by constant and rapid change. Given how creativity can help with adapting to such change, plus the considerable number of social and ecological problems we face that will require creative solutions, it's increasingly important that we find ways of educating children that don't limit the natural creativity they were born with.

If we can further develop children's skills at thinking creatively, and find space for them to entertain imaginative possibilities alongside the learning of facts, we'll see the emergence of children readily able to apply facts in the process of solving practical problems.

Creative geniuses

In 1968, psychologists George Land and Beth Jarman commenced a fascinating study into creative thinking, using a test they had previously developed to evaluate the creative thinking abilities of NASA scientists.

In its initial guise, the test had tasked those scientists with imagining alternative uses for a paper clip, with those scoring over a certain amount being designated creative geniuses. The psychologists felt, however, that the fundamentals of the test were so simple that children would be able to complete it. They therefore proceeded to set the same test for 1,600 3- to 5-year-olds, and then retested them at ages of 10 and 15. Finally, they set the test for 280,000 adults with an average age of 31.

They found that 98% of the 5-year-olds attained scores that were comparable to those NASA participants deemed creative geniuses – but then came a dramatic drop-off. The same could be said of just 30% when the same children were tested again at the age of 10. The 'creative genius' proportion fell again to 12 % when the group were tested at 15, while among the adult group, that designation applied to only a shocking 2%.

Convergent and divergent

From this, the psychologists concluded that there are two types of thinking – *convergent* and *divergent*. Divergent thinking relates to the imagination, and the thought processes involved in coming up different possibilities. Convergent thinking, on the other hand, is all about discernment, the act of making choices and efforts at finding correct answers.

The occurrence of divergent thinking, followed immediately by convergent thinking can have a powerful effect. The former will see the formulation and exploration of multiple possibilities, before the latter filters and evaluates the potential outcomes of those possibilities.

The problem in schools is that the emphasis we place reaching correct answers means that we're asking our students to engage in convergent and divergent

"All the possibilities a student might come up with, other than the most obvious, end up being dismissed"

thinking *at the same time*. The upshot of this is that all the possibilities a student might come up with, other than the most obvious, end up being dismissed – which in turn leads to children becoming less good at the paper clip test the older they get, and thus, worse at creative thinking.

As an art teacher, I've tried to address this issue by designing and teaching a lesson themed around George Land and the paper clip test – which includes actually carrying out the test itself.

Generation, repetition

I allow children to work alone or in groups, and have completed it with several different age groups. The results I've seen so far are largely in keeping with the results of the original study, with younger children tending to perform better.

My best group managed to devise nearly 150 alternative uses for a paper clip – though what was interesting about this group was that it contained a neurodiverse child who had autism and ADHD. During the lesson, this student would randomly shout out the craziest suggestions he could think of in an almost hyperactive way, with apparently no regard for whether his ideas were practical or realistic.

The group also included a pair of identical twins whose family had recently relocated from Germany. They not only wrote everything down in a highly focused, diligent way, but also came up with a system for increasing their creative 'productivity'.

When the student with ADHD shouted something along the lines of "*You could post the paper clip to China!*", the twins would write quotation marks beneath the words '*You could post...*' on successive lines to indicate repetition, followed by the names of every country they could think of.

They then developed this idea over several variations with further ideas, such as '*You could give the paperclip to...* [insert celebrity's name]' or '*You could mine for...* [insert gemstone here]' . Via this system, they generated many different ideas in a relatively short space of time.

Combined success

Studies have shown that the propensity to distraction exhibited by individuals with ADHD can result in them coming up with more creative ideas. That student of mine lacked the attention span needed to write any of his ideas down, but he was lucky enough to be working alongside two highly organised and efficient students who could.

Those students' organisational skills may have simply been down to their innate personalities. Though having grown up in Germany – a country famed (or perhaps stereotyped) for valuing efficiency and organisation, could their upbringing and prior education have affected the way they approached the task?

The paper clip study did show, after all, the extent to which the education we receive can affect the way we think. What my own anecdotal observations seem to show is the power of allowing divergent, creative thinking to take place first, before then being recorded by convergent, organised thinking taking place immediately afterwards.

Were it not for the child with ADHD, the twins might have had far fewer ideas to draw upon. Without the twins, the student with ADHD would have had little evidence to show for his creativity. Together, they were far more successful than any other group.

Better than average

The activity has prompted me to talk to the students about neurodiversity, and how it can play a role in helping some people to be more creative. The student in question, and then another, chose to explain to the class that they had autism/ADHD, and presented this as something they were proud of and content to share with their peers.

It was an outcome that made me, as their teacher, very happy, considering how some students with learning difficulties may come to view their neurodiversity as a bad thing. We also discussed the importance of being able to have creative ideas within the workplace, such as when thinking up new product ideas.

Overall, I've been pleased with how my 'paper clip creativity test lessons' have gone, and look forward to doing them again. Not just because they actively encourage students to think more creatively, but also because any neurodiverse students may find themselves faring better at the tasks than average, when they may struggle more than their peers with many other aspects of school.

I would strongly recommend that other teachers, and also parents, perform similar activities of their own. You could potentially attempt the task with any number of other everyday objects, such as a brick or a toothbrush. Do it alongside your children and see who scores highest!

Because if we can encourage children to develop their imaginative skills today, then there's a higher chance of them being able to solve some of the urgent and complex problems of tomorrow...

ABOUT THE AUTHOR
Alice Guile is a secondary school art teacher

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Beware any analyses of the youth mental health crisis that place the blame squarely on modern tech and social media – because by doing so, we're only telling a fraction of a much bigger story...|

Natasha Devon

This year, *the* name on everyone's lips in the wellbeing/education worlds has been Jonathan Haidt. For those unfamiliar, Haidt is a social psychologist and author of the bestselling book *The Anxious Generation*. In it, he posits the theory that almost every challenge faced by young people since 2010 – from sharply rising levels of mental ill health, to spiralling diagnoses of autism and ADHD, growing behavioural difficulties and declining attention spans – can be blamed on phones and/or social media.

It's fair to say that the book divided readers. To some, Haidt is a luminary, and among the first people to properly and extensively highlight some glaringly obvious conclusions from what they have observed.

Others however, have questioned his use of research and statistics. Indeed, he's been accused of that most profound crime within the field of science – confusing correlation with causation.

Obsolete evidence

From my point of view, both assessments of Haidt's work can be correct at the same time. A key problem with any attempts at assessing the mental health impacts of social media and phone use is that technological trends shift at an *astonishingly* rapid rate. Conversely, evidence that's considered solid by the scientific community will have usually taken a long time to collate and been subject to extensive peer review.

Hence, a longitudinal study on the impacts of Facebook use on self-esteem and body image among teenage girls published in 2016 was rendered largely obsolete by the fact that by then, the number of teens actually using that particular platform had dwindled significantly.

We have also since learned from assorted whistleblowers the lengths to which social media companies will often go to conceal research that reveals negative impacts of their platforms on users.

Against this context, I believe it's entirely legitimate for Haidt to apply a little conjecture to his findings. Yet I'm also wary of any attempts at explaining poor mental health outcomes in young people that place the blame solely on phones, or which suggest that social media is the most significant factor.

Societal differences

Let's take the year when we first began to see an increase in anxiety among British teenagers – 2010. This was the year that saw Michael Gove appointed as Education Secretary, before ushering in sweeping changes to the school system which saw the eradication of coursework, the slashing of PSHE budgets, an increase in examinations, and the defunding and deprioritising of activities with a proven therapeutic value, such as the arts, music and sports.

All this coincided with the introduction of an austerity programme that proceeded to plunge millions of families into poverty, while others found themselves suddenly having to work longer hours.

Whenever I point this out, the standard response I hear is that previous generations underwent comparable financial hardships without equivalent dips in mental health, the only real difference being our contemporary advances in communication technologies. I disagree with that stance on two counts, however. Firstly, previous generations didn't possess the awareness or vocabulary to articulate mental health struggles, which doesn't mean that they didn't experience them.

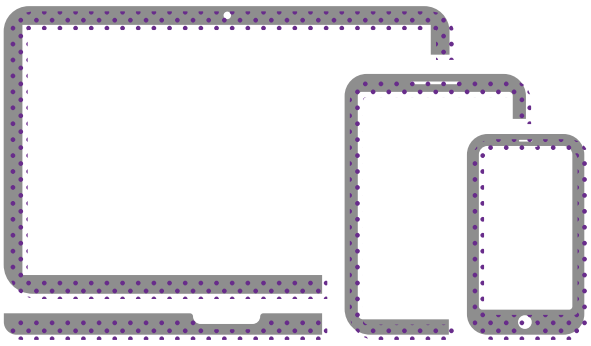
Secondly, there's something fundamentally different about the society today's young people are growing up in. I've always articulated it as a modern-day lack of community, but a paper published in *The Lancet* last month (see bit.ly/ts137-ND1) more specifically identifies the distinction as being down to the widespread adoption of neoliberal socioeconomics.

Accurate assessment

The research in question was led by the executive director of Australia's Orygen Centre of Excellence in Youth Mental Health, professor Patrick McGorry, who sees the ongoing youth mental health crisis as, "*The most serious public health problem we've got.*"

While social media *is* mentioned in the report, so too is the climate crisis, depressed wages and increased housing costs, as well as a global emphasis on individualism and competition that's "*Destroying social bonds, eroding public welfare and services and empowering harmful industries and corporations.*"

It's the most all-encompassing and, in my opinion, accurate assessment of why so many young people are struggling to thrive, or even cope. It articulates perfectly why, if we're going to properly understand the issue, we need to look beyond screens alone.



Natasha Devon is a writer, broadcaster and campaigner on issues relating to education and mental health; to find out more, visit natashadevon.com or follow @_NatashaDevon

*actually, 8

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As your Y11s prepare to embark on months of checking over notes, committing passages to memory and re-familiarising themselves with tricky facts and equations, we look at the role teachers can play in helping them memorise, plan their time and keep things in perspective...

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IN FIGURES:

HOW DO TEACHERS FEEL ABOUT THE TIME THEY SPEND ON ASSESSMENT TASKS?

58%
of Y10 to Y13 students perceive 'getting distracted' as their biggest hurdle to scoring well in exams

34%
of Y10 to Y13 students have never considered consistently spacing their revision

Source: 2023 'Revision Census' research carried out by Exam Study Expert – see examstudyexpert.com/revision-census for more details

22%
of teachers voluntarily organised GCSE revision and study sessions outside of normal working hours in 2023 (compared to 18% asked to do so by their school)

Source: Teacher Tapp survey of 5,417 teacher respondents

3 TEACHWIRE ARTICLES FROM THE ARCHIVES

START AS YOU MEAN TO GO ON
If you want to ingrain good GCSE revision habits among your students, the real work should begin from Y7, advises Charlotte Lander...
bit.ly/137special1

HELP YOUR HIGH FLYERS
Left to their own devices, even the most able students can struggle with revision, says Vic Goddard – which is why it's our job to guide them every step of the way...
bit.ly/137special2

THE LONG AND WINDING ROAD
Revision shouldn't be a last minute strategy, advises Alex Quigley – it ought to be an integral and ongoing part of every learning journey
bit.ly/137special3

REMEMBER IT WELL

Gordon Cairns looks at what schools can do to develop that most fundamental of revision skills – the ability to memorise

More and more, neuroscientists are concerned about the impact of adults' smartphone dependency on our ability to remember things.

Whether it's using GPS to steer ourselves to places we've visited many times before, resorting to Google to solve the most inane workplace disagreements or the constant 'new message' pings in the background that distract us while we're trying to absorb new information, the introduction of smartphones into our daily lives does seem to have had a detrimental effect on our ability to recall information from the back of our mind.

Pity, then, the digital natives – those students (and maybe even some younger colleagues) who have never *had* to rely solely on their powers of recall. Instead, there's always been a device readily at hand to do much of the heavy lifting that their memory really ought to be doing for them. It certainly seems as though the generations – those aged below 50, perhaps – who need to use their memory most are the least equipped to do so.

Even so, not all is lost. We can teach our students memorisation techniques which will not only help in the short-term during the academic year and exam season, but also longer-term in hopefully helping delay the onset of dementia.

Pens versus screens

Perhaps unsurprisingly, these memorisation techniques require that we turn away from digital technologies and towards more basic forms of data entry. The humble paper and pencil can be put to use in any number of ways to recalibrate grey matter struggling to remember Diophantine equations or Othello's soliloquies. Indeed, researchers at the Norwegian University of Science and Technology published a study earlier this year, indicating that brain connectivity is actually greater when a person is writing by hand, rather than typing on a keyboard (see tiny.cc/ts137-M1).

The researchers, led by Professor Audrey van der Meer, discovered that connectivity between different brain regions is more elaborate when letters are formed by a hand holding some form of writing implement. Furthermore, it's known this connectivity is crucial for memory formation and encoding new information – both of which, of course, are required for learning.

If my own experience is anything to go by, your students will likely grumble at the idea of having to laboriously copy out onto paper information that they might have written down in class already. If, however, you explain to them that the purpose of the task is to *help lodge the information more firmly in their memory*, they will generally get on board.

Given that we're in an era when many students will now use electronic devices to type notes during class time, the Norwegian researchers recommend that students are instead encouraged to record such notes by hand. They even go so far as to suggest that schools offer classes in handwriting instruction, so that students can be taught how to write quickly and clearly.

It's worth noting here that cursive writing training has already been reintroduced to many American states since the start of this year, specifically to help improve students' powers of recall.

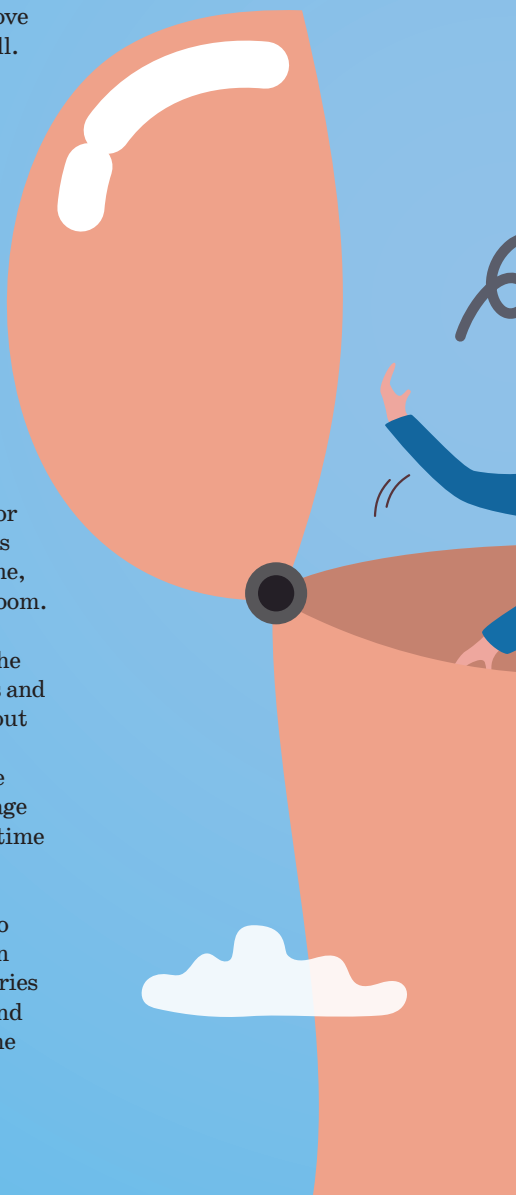
> **"Reading over notes just before going to bed helps the brain retain information"**

Speaking and sleeping

Another useful strategy is for students to vocalise – i.e. say out loud – the concepts they're trying to remember. While good for memory retention, this is perhaps best done at home, rather than in the classroom. All they're likely to remember otherwise is the cacophony of themselves and their peers all shouting out facts at the same time…

A less labour-intensive option involves the average teenager's favourite pastime – sleeping. Studies have shown that reading over notes just before going to bed helps the brain retain information. New memories are temporarily stored and then reactivated while the brain is at rest, consolidating said memories and thus making it easier to retrieve them. Conversely, this process won't occur if the information is studied the following morning, while the brain is actively preparing for the day ahead.

Encouraging your students to get enough shut-eye more generally will also help to boost their memorisation skills significantly. Brains that are sleep-deprived function more poorly than those that are well-rested, especially when it comes to



recalling information. As a teacher, you obviously have little control over what happens at home, but by recommending this apparently easier approach to better memorisation, you might at least encourage some to give it a go.

He said, she said

An equally pleasurable activity for students is to encourage them to simply talk to each other – albeit around the topics being studied, rather than their favourite TikToks.

Peer-to-peer explanations not only help speakers formalise their thought processes and understanding of the subject, but the very act of conversation itself makes the information gleaned more memorable to listeners than when read from the page.

During later recall, students will have clear memories of their classmate's voice and where they were sat in the room, with the content they're trying to learned linked to those memories of their circumstances.

Via these informed dialogues, both students will come away with greater confidence in their ability to remember the crucial facts in question.

Distributed practice

Another technique I like to encourage is known as distributed practice. This is where material is regularly repeated every few weeks or so, in a process that moves it from the temporary storage of working memory and into long-term memory, for later recall when needed.

(As with all memorisation techniques, however, it goes without saying that a topic has to be properly understood first – otherwise, any subsequent memorisation activity will ultimately be pointless).

A good way of deploying distributed practice is via flash cards or self-testing, whereby students actively test their knowledge through self-questioning, rather than by simply re-reading their notes. The trick here is to gradually extend the periods of time between each learning session to help ensure the information is stored in the brain.

No age limits

Other, more traditional methods are also available, of course, such as mnemonics. 'Big Elephants Can Always Use Small Elephants' once helped me sort out the vowel order of 'because' when I was younger, for example. For more sophisticated learners, memorising the first letter of each entry's opening word in a list of procedures can help the brain retrieve the relevant information more reliably.

All these techniques may be aimed at teenagers working in an educational environment, but there's really no age limit to their effectiveness, Perhaps we should all be reaching for pencil and paper, and work on reactivating our rusty handwriting skills when recording directions, or even draw ourselves the occasional map. Let's make our GPS redundant.

ABOUT THE AUTHOR
Gordon Cairns is an English and forest school teacher who works in a unit for secondary pupils with ASD; he also writes about education, society, cycling and football for a number of publications

SUGGESTED ACTIVITIES

1 MISSING WORDS
One activity I've found useful in helping students recall quotes is to have them copy the full quote with words blanked out, then ask them to rewrite the quote with the missing words restored. Gradually increase the number of missing words until they're left with just *one* word, and must write the full quote around it.

2 PATIENCE
When asking students to recall information from an earlier lesson, be patient with their powers of recall. We might be focused solely on our own subjects, with the relevant information foremost in our minds, but our students are having to hold new information from a range of widely differing subjects in theirs.

Give them a moment to retrieve knowledge before assuming they don't know it and moving on. Imagine the brain as a messy filing cabinet, in which you wouldn't expect to find the document you're looking for immediately – so why expect a quick answer from your students? Moving on too quickly may also cause students to become anxious about the reliability of their memory, which will further hinder their ability to remember things accurately.

3 REGULARLY REFRESH
Don't just compartmentalise your topics, covering each area of the course then moving on. Instead, return to certain aspects of topics over the academic year at regular intervals to review the information – through low stakes testing, online quizzing or by setting relevant homework tasks.

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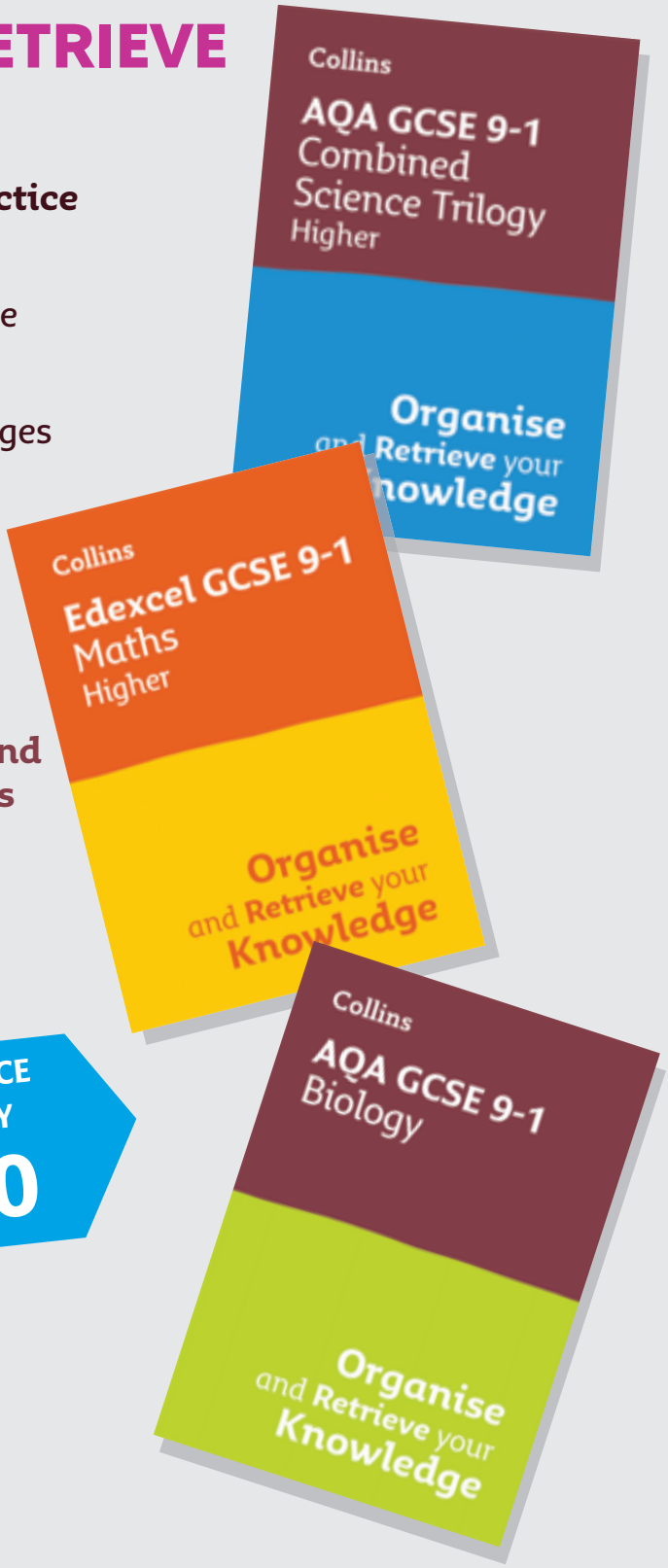

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"I don't know HOW to revise!"

Neil Dixon offers some advice for helping students plan, organise their time and experiment with revision techniques more effectively

We teachers generally keep our minds and lives quite well organised. With our day-to-day activities typically governed by a timetable, it's no surprise that many of us would choose to revise for exams using a timetabled revision programme.

Yet for some students, the stress of constructing an unrealistic timetable – which they probably won't manage to stick to – simply isn't worth it. Worse still, their likely failure to organise their time can easily lead to lower self-esteem and spiralling stress levels as their exams approach.

Mix it up

If you want your pupils to at least attempt using revision timetables, then keep it coarse. Base them on the start date of the exams, setting targets like '*Revise all Geography Paper 1 content by the start of May*' if the exam is in early June, to allow time for revisiting the relevant topics.

Keep revision sessions fresh by mixing subjects and returning to areas previously covered; students' growing familiarity with the material should then boost their confidence. You can find further tips and advice on helping students revise via the BBC's Bitesize Study Support (see tiny.cc/ts137-RT1).

Introduce your students to a range of revision strategies, so that they can experiment and see what works for them. When students are reflecting on prior assessment performance, have them identify and self-evaluate the revision techniques they used. They might find that some topics can be revised more effectively using mind maps, while others may benefit more from use of flashcards.

Get them motivated

Some students can be incredibly self-motivated. For others, motivation can be a huge problem. With the latter group, engage parents and carers if you can (as well as any tutors and support staff) in helping students set specific goals. Doing this might help them to stay on task when the revision piles up. Ask them to consider, for example, '*What will achieving a 5 in English mean for me? Why is it important for my future plans?*'

Encourage your students to try revising with others, be they peers or family members. I love it when my own children explain something to me that they've been studying at school, because when you explain something to someone else, it challenges your own understanding.

That's why I'll sometimes ask my Y11 students to explain something back to me as if I were a Y9 student. I can then use questioning to challenge their understanding and use of terminology.

Park the past papers (for now)

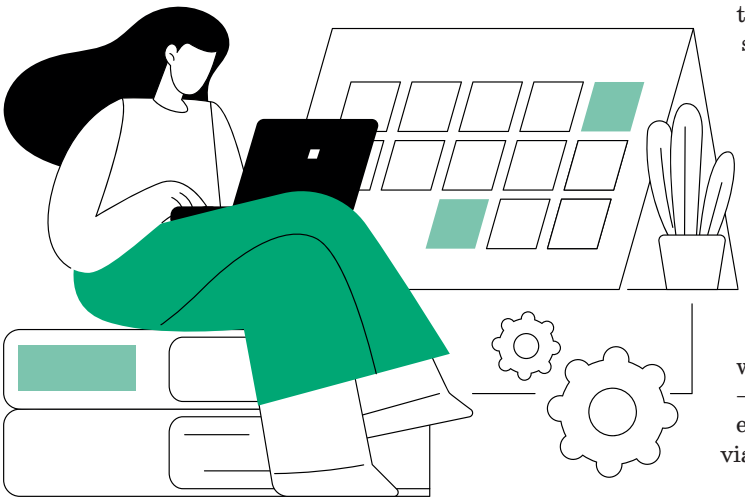
I always recommend leaving past papers until fairly late in the revision process, once the content and skills are more familiar. Otherwise, there's a good chance that students will destroy their confidence by finding the paper too hard.

Before using the limited supply of available genuine past papers, build up to them by using exam-style questions of the kind found in workbooks and online – you can find plenty of examples at BBC Bitesize via tiny.cc/ts137-RT2.

I recommend to students that they use mark schemes alongside past exam questions, especially in subjects where the mark schemes are easy to understand. For subjects where the mark scheme is more complex, you may need to dedicate some lesson time to showing them how to assess their own work. Practising peer assessment and peer feedback can be helpful here.

Students can also revise using audio media (such as the Bitesize podcasts available from BBC Sounds via tiny.cc/ts137-RT3) while walking in town or travelling by public transport, which can be a real help when managing their time.

Of course, we all know that the same devices students use to access digital revision materials can also be hugely distracting. It might be worth explaining to students how to configure their devices with screentime controls and restrictions on certain apps or websites during study sessions. They can then look forward to those restrictions being lifted in the evening – at least until bedtime…



ABOUT THE AUTHOR
Neil Dixon is a science teacher at South Bromsgrove High School and the author of several revision guides and textbooks; he is also currently a Subject Matter Specialist for Ofqual

You can find more student-oriented revision and wellbeing support at BBC Bitesize via **tiny.cc/ts137-RT4**

From brilliance TO BURNOUT

Rebecca Leek looks at what teachers can do when students' determination to do well in their exams tips over into stress and exhaustion

It's your dream come true. You have motivated, determined, diligent students who are poised and ready for a long season of revision and study. They're going to start early, and tackle the exam challenge as a marathon, not a sprint.

This is brilliant, and hopefully they'll stay the course. However, with some students there's a risk that stress levels will start to creep in, and that the wish for high performance tips into anxiety and overwork. Will they peak too soon? Will they start cramming into the early hours? How can we help students develop study habits that are healthy and sustainable?

Quality over quantity

Start by helping your students experience the feeling of efficient self-study. Walk them through some methods in class, let the students reflect on them, and how they might replicate them independently. Three to try might include:

1. The Pomodoro Technique: Officially, this involves studying for 25 minutes, followed by a short break, followed by another 25-minute block, but formulas can vary. It's essentially chunking time, rather than just letting an hour or so drag through with diminishing returns.

2. Multimodal learning: This entails mixing up reading, talking, writing, drawing and any other medium that works for you. Select some content, then challenge your students to read about it, write about it and ask each other questions about it.

3. Swallow the frog: Help your students identify the topics and areas they're least secure about and most keen to avoid. Whether it's the future tense, how the heart works or their least favourite type of question – swallow that frog!

> "You may know when your subject's exams fall, but how do they fit around the others?"

I came to these strategies myself far too late. It would have been amazing if I'd received guidance on how to make my revision time be as effective as possible much sooner. Ultimately, employing some of these will make your students' exam preparation both sustainable and more gratifying, producing an ongoing sense of achievement that will help them maintain a sense of balance as the weeks progress.

The dense exam season

A recent review of the curriculum and assessment system led by former Education Secretary, Charles Clarke (see tiny.cc/ts137-B1) concluded that, "*The current volume and density of examination at GCSE and for vocational Key Stage 4 qualifications is too high, with students taking an average of 31.5 hours of exams each.*"

At the end of KS4, there are, quite simply, lots of exams, and they come thick and fast. Therefore, it's extremely important that your students are fresh and ready in May and June. If they overdo it during the Easter period, and then lose equilibrium with increasing anxiety and poor sleep, any gains from earlier in the year will be lost. To prevent this, be sure to address the following areas:

Timetabling: Help students map out how they will tackle different subjects. As a single subject teacher, you may know when *your* subject's exams fall, but how do they fit around the others? Find out whether your students have worked out how to handle all the demands on their time. I like to use a timetable that works backwards from the last exam, with lots of

interleaving. This might sound obvious to some of us, but if organisation and seeing the bigger picture doesn't come easily, help students see how they can assemble a jigsaw out of their revision workload; otherwise, there's a risk of them becoming completely overwhelmed.

Planned down-time: It's all very well scheduling in (essential!) downtime, but when there's no *plan* for such time, those blank afternoons can become the periods when stress really starts to build. Students can end up swimming in a stagnant soup of preoccupation – about the looming exam season, or about how they're not revising. Then the phone-scrolling begins, and that listlessness can breed a sense of hopelessness. Ask your students – '*What do you do when you take breaks? Do you make a plan, and what different things can you do to make downtime genuinely restful?*'

Body and mind: Inactive bodies do nothing for our mental health. Talk to your students about the various ways in which they can keep active. You could even show them by taking them out for a walk. Our local high school organises a sponsored 10-mile walk each year – something like that can show many 'non-sporty' teenagers how activity can take many forms. Do they know where they can go in their local area and feel safe? Does your school do enough in terms of providing recreational activities for exam year students?

Flipping rewards

The ultimate reward for highly motivated students is the grade, or the doors that exam grades might open for them. They have a mental picture of where they want to get to, and that's a healthy driver. Until it isn't healthy any more.

For those who have lost their sense of balance and started sinking into patterns of overwork, can you help them flip the rewards? That is, they get a reward for taking a walk, or for stopping every 40 minutes for a half-hour break (rather than a reward for revising). Long distance runners use a similar strategy, whereby a slow run – which actually has many benefits, but is often dismissed by people too fixated on speed – is set as their weekly goal. Being slow becomes the thing that gets that mental gold star.

Catastrophising

If you have a student who has become so stressed that they've reached the point of catastrophising – '*I'm going to fail everything!*' – do you have some techniques to support them in this state?

Listen and acknowledge what they're saying, but also gently challenge them: '*What makes you think you will fail? Which subjects will you definitely* ***not*** *fail? How can we make sure you pass at least one?*' And so on.

Finally, ask them about their sleep (see panel). This is something I'll always come back to, because sleep quite literally *repairs our brains*. If a student is looking ragged, work on this first of all. It's absolutely essential for getting them 'race-ready' ahead of that busy exam season.

TOP TIPS FOR SUCCESSFUL SLEEP

CIRCADIAN RHYTHMS

Respecting how our natural body clocks respond to light and dark makes for a better night's sleep and a healthier, more sustainable lifestyle. Observe how deciduous trees respond in the autumn – they sense the light changing, and their biology kicks in. We respond to light too, so get outside when the sun is coming up in the morning. Even if it's just for just a few minutes.

SCREENS

Decide on a place where you'll keep your phone or tablet overnight – preferably somewhere other than your bedroom. This means you won't dive into doomscrolling as soon as you wake. Besides which, reading a book at bedtime without a backlit screen is far better for your brain.

NAPPING

Be very careful with naps. They can be brilliant, but get them wrong, and you'll lose time in the day you didn't mean to (*stress!*) and be unable to get to sleep properly at night (*more stress!*). There's research that says a 20-minute power nap can work wonders, so be disciplined and set an alarm.

ABOUT THE AUTHOR
Rebecca Leek has been a primary and secondary teacher, SENCo. headteacher and MAT CEO; she is currently the Executive Director of the Suffolk Primary Headteacher's Association

Know your limits

There's an overwhelming quantity of educational research literature out there – only a fraction of which is actually important for teachers to know, argues **Colin Foster**...

Do you ever feel guilty for not being more knowledgeable about the latest developments in education research?

Perhaps you're one of those teachers who'll happily dip into the research literature from time to time, in the hope of finding some useful information that might improve your teaching in some way.

Often, however, seemingly relevant articles can be hard to access, locked behind paywalls or turn out to be written in near-impenetrable jargon. And even when you *do* manage to decode what they're saying, they will frequently seem to state the obvious – things that surely every teacher knows, and has been doing every day of their career.

Conversely, there will be some studies and papers addressing questions that no teacher ever thinks or cares about, with little practical relevance to the classroom. Given all this, why do any of us bother?

Useful knowledge

It's worth considering what kinds of technical and research knowledge pertaining to education would actually be useful for teachers to have. Knowledge is always a good thing, of course – gaining knowledge is never going to make things worse – but given the many demands on teachers' precious time, what kinds of information from the research literature should teachers prioritise finding out more about? And how much of it will really matter to classroom teachers?

I was thinking about this recently, as I've been learning to swim. I can't presently swim, but I do have a science degree, and know plenty of theory about how floating and sinking and swimming work. In this respect, at least, I'm the classic 'armchair expert' who is of no use in practice.

I take lessons with a very good swimming teacher who is highly experienced and came well recommended. To be clear, I have no problems with him at all.

However, I've noticed lately that he seems to display some of the classic misconceptions around floating and sinking that are well known to school science teachers.

> **"Empirical generalisations are more useful to teachers than the latest scientific theories"**

For example, he told me that it's easier to swim in deeper water, since there's more water underneath '*to hold you up*'. This isn't how floating works, and is a common misunderstanding, possibly stemming from the (true) fact that air pressure is lower at the top of a mountain because there's less weight of atmosphere pushing down on you from above.

In case you're wondering, no, I didn't try to correct him! Maybe he's right that it is somehow easier to swim in deeper water. I imagine he would know about something like that – but even if he is correct, his explanation for it is still wrong. And this got me thinking – *does that matter*?

It's better to be right than wrong, of course. But would he be a superior swimming teacher if he had better scientific knowledge regarding such phenomena? Would it make much, or even any difference at all?

Empirical generalisations

We see this sort of thing all the time. A driving instructor will explain to the learner how the car's gears work, to help the learner make better use of them. The learner happens to be a garage mechanic, and knows that the instructor's explanation is a bit wrong – yet the instructor has nevertheless become a very good driver, presumably in part by basing their gear changing on this wrong understanding. Similarly, my swimming teacher has become a very good swimmer – and perhaps swimming teacher – without his misconception seeming to do him much harm.

The psychologist Daniel Willingham has argued that the most useful kind of knowledge for teachers are what he calls *empirical generalisations* (see bit.ly/ts137-TK1) – well-evidenced truths about the nature of learning, manifested consistently across many different

research studies.

Some of these will be obvious things that every teacher already knows, such as that performance of a given task will improve with practice. Conversely, other empirical generalisations may seem counter-intuitive, such as desirable difficulties – how making practice harder by mixing up topics leads to lower scores in the short term, but better long-term learning. You might not guess that if you hadn't heard about it.

Willingham argues that empirical generalisations are more useful to teachers than the latest scientific theories, because those theories won't have yet been conclusively verified. When you next read about some cutting edge study with headline-grabbing findings, you should remember that one study is only ever just one study. And one study might say anything.

What is of more importance and value is the overall message that emerges across many studies that have been conducted within a particular area, where the noise within each separate study will hopefully be cancelled out to reveal a more reliable overall trend.

Confidence, not guilt

If you're doing a good job in the classroom, then most of what you absolutely need to know, you probably already know. If your students are learning well and are confident in the subject, you must be getting a lot of things right.

So, if someone then comes along claiming that they have some new research that should drastically change what you do, I'd be very suspicious indeed.

Marginal gains on top of your existing practice? Those are good. Some interesting new ideas for you to consider? They may be worth looking into. But rethinking everything dramatically? That sounds dangerous.

Instead of feeling guilty about all the research you aren't reading, and wondering constantly about what amazing practices might be out there that you're unaware of, be confident instead in your own practice.

Prioritise the reading of literature that seems likely to provide empirical generalisations across a whole body of research, rather than cherry-picking single studies. Look for small ways of making incremental changes, rather than risking throwing out the baby with the bathwater amid drastic, 'big bang' implementations of novel practice.

Fluid dynamics may be interesting, but even an Olympic swimmer doesn't need to be able to solve the Navier-Stokes equations (differential equations which describe fluid flow). Knowledge is good, but some bits of knowledge have much more leverage than others.

When you're a passenger on an aeroplane, you'd be grateful if the pilot understands the basics of how planes fly, but you wouldn't expect them to be able to rebuild a jet engine themselves.

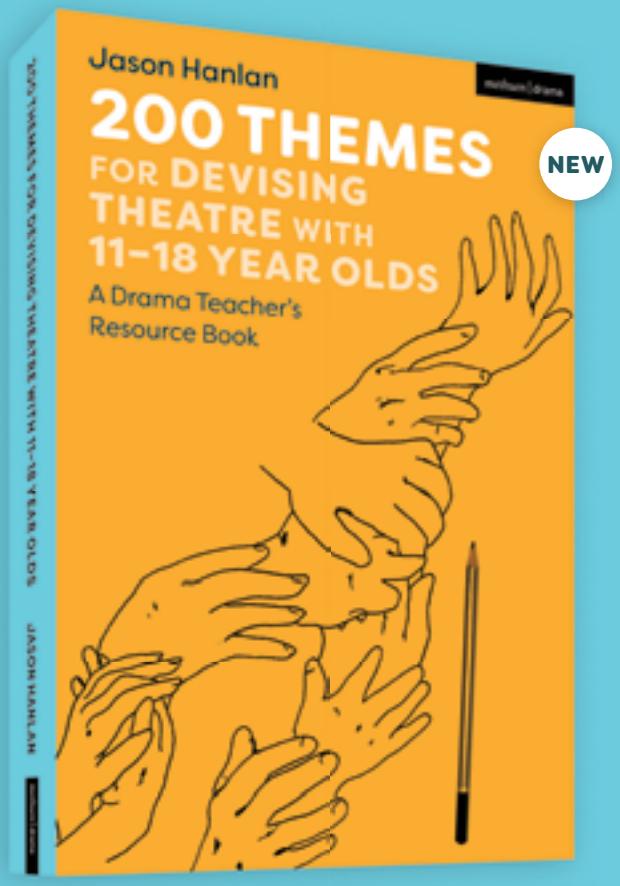
Similarly, your students don't expect you to know every latest learning theory, but rather to have the practical knowledge and wisdom acquired from experience needed to do a great job in the classroom.

ABOUT THE AUTHOR

Colin Foster (@colinfoster77) is a Reader in Mathematics Education in the Department of Mathematics Education at Loughborough University, and has written many books and articles for teachers; find out more at foster77.co.uk

methuen | drama

MUST-HAVE BOOKS FOR DRAMA TEACHERS



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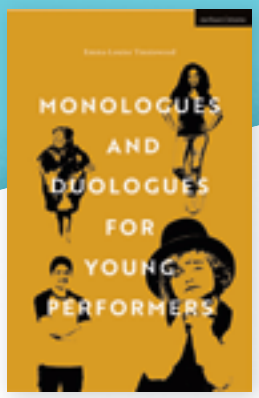

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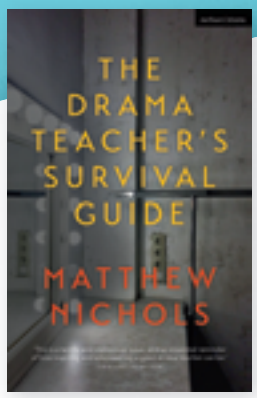

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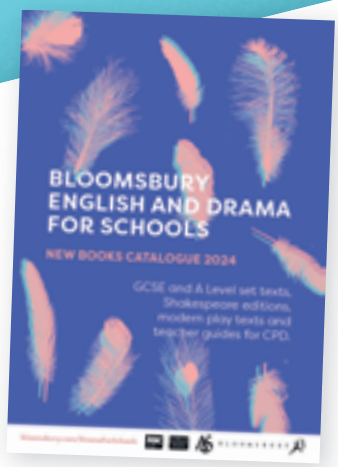

Looking for more?

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Find out more at **bloomsbury.com/DramaForSchools**

BLOOMSBURY

A healing SUBJECT

The importance of drama may have diminished in the eyes of some, but its multitudinous benefits have only become clearer over time, maintains **Audrey Tang**

According a 'State of the Arts' report published by the University of Warwick earlier this year, arts education in England has experienced a significant decline. The number of arts teachers in English state secondary schools fell by 27% between 2011 and 2024 (from 55,000 to 40,000), while the total hours of arts teaching declined by 23% over the same period (from 501,000 to 387,000).

The report's authors put this largely down to the growing adoption of English Baccalaureate, and the government appearing to designate the arts as not 'strategically important', resulting in a 50% cut in funding for what are termed 'high-cost subjects'.

Work ethic

I would argue, however, that 'high cost' – if that is indeed the case – subjects nonetheless deliver high returns on investment. During my own time as a secondary school drama teacher, I enabled my students to perform on the West End Stage, earn a Guinness World Record (for being part of the largest number of students speaking Shakespeare at the same time) and perform a musical at The Edinburgh Fringe Festival.

Moreover, the teamwork, the work ethic and resilience they developed will have shone on their CVs, over and above their grades. I further produced our school's staff panto and student revues. Not only did these boost general wellbeing – vital in a profession with such high

burnout rates – they also helped staff and students alike appreciate different sides (and often exceptional talents) in one another, producing a shared sense a mutual respect.

Due to the nature of the subject, I would sometimes have students 'sent to me' for being challenging in other classes. Plus, because theatre involves performance *and* tech, plus costume, set design and numerous other backstage duties, there was always a place to include anyone who came through my door, and an opportunity for them to become a respected member of the team.

Raising awareness

It's well-documented that arts programs – whether focused on creativity or performance – have numerous benefits on social inclusion and wellbeing, particularly for marginalised groups.

They can also promote social inclusion by providing spaces in which individuals from diverse backgrounds can come together to connect, collaborate and learn from one another (Global Policy, 2023).

The Ministry of Justice agrees that participation in arts subjects can raise awareness of social issues, give people a voice, break down barriers and foster a sense of community that works as a deterrent against crime.

Arts-based skills further permeate all sorts of careers – from the ability to present and speak publicly, to the role-playing techniques used in some rehabilitation processes.

Even the very act of training itself can be enhanced through learning about Augustus Boal's 'Experiential theatre', and having professionals explore their responses to professional challenges in a safe space, with no 'real world' consequences.

A chance to be heard

And yet, since the 1988 Education Reform Act, drama has become ever more marginalised.

It's essential that the government recognise it's not just confidence that's built through engagement with the arts, but the longed-for opportunity to be *heard*, which psychologists recognise as being central to mental health.

It's important to note, however, that due to drama's in-built tendency to draw out vulnerabilities from participants like no other curriculum subject, those teaching it must be equipped to deal with this. As such, for those preparing to take on the role of drama teacher there ought to be some form of additional mentoring or pastoral training, on top of the general safeguarding training that ECTs will typically attain.

There's also perhaps a case to be made for drama to form part of a new blended subject, such as the 'Creative Health MA' currently being proposed by the University of Bedfordshire – under which arts professionals would be exposed to the healing power of their work, using the same tools, grounding and supervision as those trained in healthcare.

Perhaps it's time for us to stop seeing drama as 'just' an arts subject, and start seeing it as a healing one…

ABOUT THE AUTHOR
Dr Audrey Tang is the founder of the CLICK Arts Foundation (clickartsfoundation.org.uk), as well as a psychologist and leadership author

What's New?

Our pick of the latest solutions and innovations for secondary education

1 Motivation boost

Do you have students struggling with attendance this term? We put students on the journey to renewed confidence, motivation and positivity about learning, acting as a bridge to reintegration. You can't predict when students will need extra support or struggle with their attendance – so Academy21 is agile enough to always have immediate capacity to give students the support they cannot access elsewhere.

Email Academy21 via **contact@academy21.co.uk** to find out about partnering with us to support your school, and learn about our full range of provision at **academy21.co.uk**

2 Making learning secure

With the growing integration of technology into education, online safety has never been more vital. Dell Technologies and Intel offer comprehensive security solutions that safeguard students from cyber threats while enhancing classroom focus.

Their advanced tools, such as hardware-based threat detection and remote management, make sure that schools can maintain a secure learning environment. For schools prioritising both safety and effective technology use, Dell and Intel stand out as trusted partners in creating a future-proof, secure educational experience.

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3 Future-ready resources

Equip your students for tomorrow's workforce with the IBM SkillsBuild platform, offering over 200 expertly crafted resources – including lesson plans, rubrics and more.

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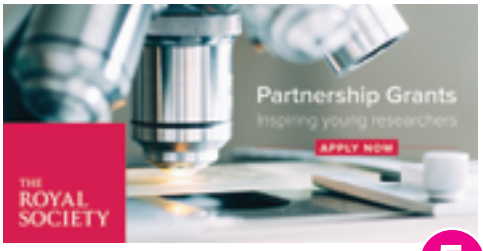
4 Create engaging coding lessons

Designed with young learners in mind, the Raspberry Pi Foundation's Code Editor helps make text-based programming easy and accessible for children aged 9 and up.

By registering a new school account, you can confidently use the Code Editor in your classroom, knowing that your students' data will be protected. Educators benefit from an intuitive interface when creating and managing student accounts, organising students into classes and assisting with password resets. Whether you want to help your students create original games and art using Python, or build websites using HTML, CSS, and JavaScript, the Code Editor lets you create your own custom coding projects. Register your school for a free account at **rpf.io/code-editor-teach**



5 Bringing STEM to life

Through the Royal Society's Partnership Grants scheme, schools can apply to receive up to £3,000 to run an investigative STEM project in partnership with a STEM professional from academia or industry. The projects funded by the grants can cover any area(s) of STEM, and must provide students with opportunities to develop and embed key skills, such as research, problem solving and data handling. Through the scheme, students can also gain insights into potential careers through regular engagement with one or more STEM professionals. Lots of support is available from the Schools Engagement team, ranging from online introductory sessions, to feedback and guidance on applications. Find out more at **royalsociety.org/partnership**

6 Girls belong too

Computer science is the fastest growing STEM subject, yet despite its popularity, girls taking the subject remain consistently outnumbered by boys. 'I Belong: encouraging girls into computer science' is an inspiring programme delivered by the National Centre for Computing Education that supports teachers and leaders in understanding the barriers to girls' participation in computer science, and helps make a plan to overcome them. By enrolling on the programme, you will be shaping the future of computing, improving diversity within the subject and ensuring that every girl knows she belongs in this dynamic and rewarding field. Find out more and enrol at **ncce.io/belonging**

7 Drama Event: You're invited

Jerome Favre (taken at the launch of the Bloomsbury Lit in Colour Play List 2023)

Discover new and diverse plays for secondary school study and performance at Bloomsbury Publishing's next Lit in Colour event. Taking place during the Bloomsbury Festival at Conway Hall in London in the evening of the **23rd October**, Bloomsbury Publishing is launching its 2024 (*Incomplete*) Lit in Colour Play List with some live performances and panel discussions.

Highlighting 60 plays by Global Majority and minority ethnic writers, the (*Incomplete*) Lit in Colour Play List 2024 puts forward ideal plays to study at secondary level, which explore themes and topics to fit within your English and Drama teaching. If you're interested in finding new plays to teach your secondary students this year, this is the event for you! Bring your colleagues, friends and students (aged 16+) to this FREE event.

Tickets can be booked via the Bloomsbury Festival website: **bloomsburyfestival.org.uk/events/lit-in-colour/**

8 Free space education

As part of the UK Space Agency's Space to Learn programme, the National Space Academy is offering space science workshops, careers conferences and space camps to UK secondary students – completely free of charge.

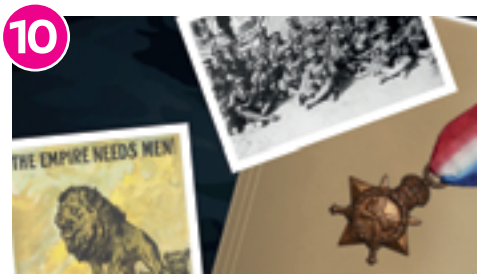
Space Camps are taking place across the UK, providing students with exciting and immersive space science experiences that feature hands-on activities and talks from STEM professionals. The one-day Careers Conference events, meanwhile, allow your students to explore the huge variety of space ca-reers out there, and hear from real space industry professionals.

Finally, the Space Masterclasses are delivered by specially trained science teachers, who can visit your school to conduct a curriculum-linked workshop of your choice. Learn more and apply at **national-spaceacademy.org/space-to-learn**, or email **spacetolearn@spacecentre.co.uk**.

9 Deep and meaningful

Discover what Ofsted's 2024 RE report means for you with this expert-designed, self-led FREE short course, 'Deep and Meaningful - Understanding Ofsted's 2024 RE Report'. In just 1.5 hours, you will gain insights into key findings and contributors to quality RE, and find out how the report can shape your practice.

Perfect for teachers, governors, parents and SACRE members alike, this course offers flexible learning that can fit around your schedule, and be paused and returned to at any time. Boost your knowledge and enhance your RE vision by freely accessing the course at **learningzone.retoday.org.uk**



10 British Army

Celebrate Black History Month with a series of free KS3/4 resources from the British Army Supporting Education (BASE) programme. Empower your lessons with material concerning the significant contributions of Black British, African, and Caribbean individuals to the history of the British Army. Uncover the untold stories of often overlooked Black service personnel while exploring their legacies, and spark thoughtful discussions through reflection questions and insights from currently serving Black soldiers.

Developed in collaboration with The Black Curriculum (**theblackcurriculum.com**) and The BlackPoppyRose (**blackpoppyrose.org**), the resources can be downloaded for free via **tiny.cc/ts137-WN1**

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"What's going on with you?"

Michael Power explains how showing empathy can open up the possibility of forming transformative connections with your students

Picture this – you're in the middle of a busy school day when a student storms into your classroom, visibly upset. She stands in front of the class and declares, "*You're the worst teacher I've ever had, and I'm leaving!*"

If you're like I was early in my career, then your first instinct might be to react defensively. Maybe even raise your voice and hand out a detention. But what if there was a better way of handling these moments, turning them into opportunities for real connection and growth?

Game-changer

Enter unconditional positive regard – a concept from psychologist Carl Rogers that can be a game-changer in education. Unconditional positive regard is all about accepting and supporting students, no matter what they say or do.

Now, I know what you're thinking – "*But in the real world, students can be disruptive, rude, and challenging. How do you apply this idea when dealing with teenagers who think they know everything?*" Trust me, I've been there, and it's where unconditional positive regard truly shines.

When I was new to teaching, I relied heavily on raising my voice and detentions to maintain control. It was all I knew. But as I became a head of year, I started to see things differently. One student – let's call her Sarah – *really* tested my patience. Late to class, never turned in homework, always pushing my buttons; but instead of just punishing her, I decided to try something new.

After yet another outburst, I pulled Sarah aside. However, instead of giving the usual lecture, this time I simply asked, "*What's going on with you?*" What followed was an emotional outpouring about problems at home that I had no idea about. Her behaviour wasn't defiance; *it was a cry for help*.

That conversation was a turning point. By offering unconditional support, I soon saw a shift in her attitude. She started coming to class on time and making an effort, even if her homework wasn't perfect. I began to see her as more than just a 'problem' student.

Learn and grow

Unconditional positive regard isn't a magic wand that can make all behavioural issues disappear, but it can change the dynamic between you and your students for the better. It's not about letting them off the hook; consequences are still important. The difference is that those consequences needn't involve shaming or alienating the student. Instead, they should form part of a process that helps the student learn and grow.

For instance, I once had a student who lost his temper when I asked him to tuck in his shirt. He started shouting and even made a few threats. The old me would have escalated the situation, but instead, I listened. *This is an extreme reaction to something so small*, I thought. Once he calmed down, we talked about how to avoid similar incidents in the future. He corrected his uniform, served his detention and I never saw his shirt untucked again.

Unconditional positive regard isn't just for managing behaviour. It also helps students develop resilience and a growth mindset. By showing them that they're valued, despite their struggles, you empower them to take risks and strive for improvement. It creates a classroom environment where students feel safe – both physically and psychologically – to be themselves, make mistakes and learn from them.

Strong, trusting relationships

Looking back, unconditional positive regard was the key to building strong, trusting relationships with my students. These relationships then became the foundation for more effective teaching and learning. Students knew they could come to me with problems without fear of judgment, allowing them to focus more on their academic journeys.

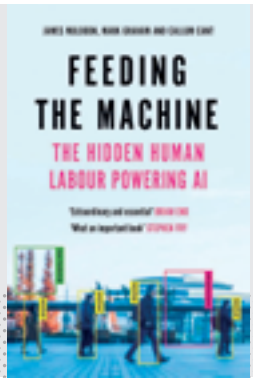
Now, as a headteacher of two pupil referral units, I fully embrace unconditional positive regard in my work with students who challenge the status quo. These students often need our support the most, and I find great satisfaction in helping them make positive changes in their lives.

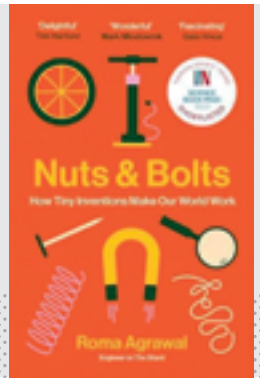
So, next time a student pushses your buttons, take a moment to listen. You might be surprised at what you discover.

ABOUT THE AUTHOR
Michael Power is a headteacher and author of *The Head of Year's Handbook* (£18.99, Critical Publishing); for more information, visit michaelpower.org.uk

Off the Shelves

Brilliant titles for you and your students to explore





Feeding the AI Machine: The Hidden Human Labour Powering AI

(James Muldoon, Mark Graham and Callum Cant, Canongate, £20)

Captivated as we are by the wonder of seeing AI apps summarise long reports and produce schemes of work in a matter of seconds, it perhaps hasn't occurred to enough us how all the 'magic' involved actually works – that the data AI relies on has to first be tagged and processed before it can be used. This book examines the working lives of the people involved in precisely that. Alongside some harrowing workplace stories and testimonies, the authors present some suggestions as to how things might be improved. The detailed research and the issues highlighted herein are a timely corrective to the techno-optimism of AI advocates, though be advised that the authors make little secret of their political leanings. The book's content could be a good springboard for classroom discussion, but approach with care...

Reviewed by Terry Freedman

(see bit.ly/Eclecticism for more details)

Love Triangle: The Life-changing Magic of Trigonometry

(Matt Parker, Allen Lane, £24.85)

Like many people, I suspect, I've never given much thought as to what isosceles triangles are and what they're used for in the course of my daily life. Yet it turns out that it, and other types of triangle are crucially important to many of the everyday technologies we take for granted, such as the seemingly simple task of printing out a colour photo from our phone. What makes this book stand out is the dizzying range of applications for triangles that Parker covers – from heading off asteroid collisions with Earth, to the humdrum slicing of sandwiches. Moreover, you wouldn't normally expect to find trigonometry sharing page space with humour, but there are parts of the book that read like 'dad jokes' on steroids. The more densely technical discussions left me behind, somewhat – but on the whole, *Love Triangle* is highly engaging and full of surprises.

Reviewed by Terry Freedman

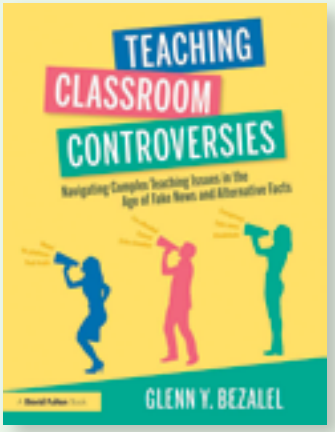
Nuts and Bolts: How Tiny Inventions Make Our World Work

(Roma Agrawal, Hodder, £12.99)

It's rather disconcerting when one considers that buildings like The Shard are essentially held together by nuts, bolts and washers. In *Nuts and Bolts*, Agrawal explores how seven seemingly humble technologies – the nail, wheel, spring, magnet, lens, string and pump – have not only contributed hugely to our built environment, but also facilitated important advances in clothing, entertainment and economics. From the title and that description, you could be forgiven for expecting a dry treatment of the subject matter, but Agrawal's easy, non-patronising prose (the technical explanations are illuminating, without being daunting) and her emphasis on personal perspectives makes for a – pardon the pun – riveting read. As an engineer who worked on the design of The Shard, Agrawal's insights could well inspire your students, especially girls, to consider careers in science and engineering. Highly recommended.

Reviewed by Terry Freedman

ON THE RADAR



Teaching Classroom Controversies

(Glenn Y. Bezalel, Routledge, £16.99) 208

Anyone who's so much as picked up a newspaper in recent years, let alone ventured into the trenches of social media, will know all too well how vituperative modern societal discourse has become across all manner of subjects.

Bezalel has therefore set himself quite the task by penning this 'how to' manual advising teachers on how to engage their class in productive and equitable discussion of hot-button topics. A book of two halves, part 1 maps out a theoretical framework that unpacks the concept of 'polarity' – recognising that a given problem can have multiple correct, yet interdependent solutions – and calls for teachers and students alike to adopt a pluralistic mindset capable of acknowledging the different modes of thinking and value systems that exist across the world.

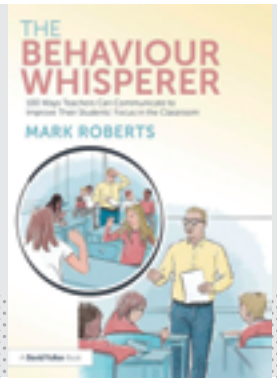
In Part 2, Bezalel rolls up his sleeves and presents a series of practical guides to exploring specific topics – including transgenderism, free speech, the Holocaust, climate change and the Israeli-Palestinian conflict. In each case, Bezalel is at pains to not tell readers what positions to adopt, but rather show how they can introduce students to the wider context surrounding the issue, the potential sensitivities and pitfalls they should be mindful of, and how the topic can be discussed/debated in a spirit of open enquiry and intellectual humility. Any readers concerned that the book amounts to an indoctrination toolkit, don't be – if anything, it's the polar opposite.

Picture Perfect: An Anthology of Poetry and Prose

(Richard Davenport-Hines (Ed.), Mount Orleans Press, £25)

As indicated by the title, the first thing to know about this anthology is that it comprises both poetry *and* prose, rather than one or the other. Many of the pieces are quite unusual, such as a series of short pieces grouped under the shared title of '*I have been...*', though the arrangement and presentation of the works is evidently the result of careful thought (or veiled humour – such as one poem concerned with the theme of sea-sickness being immediately followed by an assemblage of advisory aphorisms). If there's a criticism, it's that more room could perhaps have been made for a few lesser-known poets. Regardless, English teachers can expect to discover much here that could serve as the focus of a lively class discussion or prompt for a writing exercise. This is a solid collection of poetry by a good mix of authors, which is always to be welcomed.

Reviewed by Terry Freedman



The Behaviour Whisperer

(Mark Roberts, Routledge, £15.99)

Subtitled '*100 Ways Teachers Can Communicate to Improve Their Students' Focus in the Classroom*' that's exactly what you get here – a hundred distinct 2-page 'scenarios' that each briefly describe a common behaviour-related situation in the classroom, before presenting a straightforward 'do/don't' panel, a brief explanation of why the advice offered works, and several suggestions on how to manage similar incidents in future. Between its smartly conceived structure and helpful illustrations (particularly those accompanying the 20 scenarios towards the end of the book dedicated to non-verbal behaviour management techniques), it's conceived with the needs of busy teachers very much in mind. If one were to try hard, it *might* be possible to come up with a specific scenario the book doesn't address, but so extensive is its scope, chances are you'll still find some applicable advice regardless.

Meet the author

MARK ROBERTS

How did you devise the scenarios within the book?

I came up with most of them over a week or so, thinking back on incidents that had happened throughout the course of my career. I also sought some advice from others to check I wasn't missing anything, and my 11- and 13-year-old sons were a great help in pointing out a few things I'd overlooked. Overall, though, the scenarios are a mix of issues I've seen other teachers grappling with, as well as fair few things I've got wrong myself over the years.

Are you able to share any examples of the latter?

As a young NQT. I remember doing my seating plan, then giving the '*You're sitting next to you*' instructions on the day, when two students pleaded with me to not be sat beside each other. Being stuck in my ways, I told them my decision was final – only to later discover that they'd recently broken up, and that it was genuinely quite painful for them to be near one another. It made me realise that I should have done more digging, been more communicative and a bit more open. I could have had a quiet word with them both and found out what the issue was.

Why did you devote a separate section in the book to non-verbal behaviour strategies?

Non-verbals and gestures are hugely underused. The teachers I speak to all recognise what they are and why they're important, but I think we can sometimes forget that they're available to us, despite them offering some key advantages over verbal communication. They can help to save your voice in class, avoid breaks in the flow of a lesson and provide us with a way to avoid lapsing into a negative tone. By using certain types of gestures, we can remove that sense of confrontation.

Has there been an overall rise behavioural challenges within schools?

There are more families living in poverty and more children coming to school hungry. Those societal challenges, along with COVID and access to smartphones, have meant that schools are now having to tackle more behaviour issues, but I don't think that should make us despondent.

Behaviour is something we can control and help children to better understand. It's not a given that children who behave poorly will always behave poorly. We have to see the potential for growth and development, because if we don't, we may as well pack up and go home.

Mark Roberts is director of research at Carrickfergus Grammar School in Northern Ireland

Q&A

"Ignite students' curiosity"

Find out how your school can apply for a grant of up to £3,000 for you and your students to carry out scientific research

30 SECOND BRIEFING

Receive up to £3,000 through the Royal Society's Partnership Grants scheme to run an investigative STEM project in partnership with a STEM professional – an excellent way for teachers and technicians to develop practical STEM experiences as part of the curriculum, or via extracurricular activities.

What are the Royal Society Partnership Grants?

Partnership Grants is a funding scheme for UK schools and colleges, where you can receive up to £3,000 for purchasing equipment to help you run an investigative STEM project. Projects are run in partnership with someone working in a STEM role in academia or industry. The grant provides opportunities for students to develop key skills for their futures and perform hands-on practical work in the classroom.

Why should my school apply?

The scheme provides an opportunity to ignite students' curiosity, and by working with STEM partners, gives students insight into a variety of careers. These partnerships are sustained and the equipment can be re-used, leading to a long-term impact for the school. Evaluation of the scheme has shown that the grants awarded can help to increase teacher confidence in running practical activities. Projects run under the scheme can aid your school's curriculum delivery, and we would also encourage the development of cross-curricular projects.

What types of projects are funded?

Projects eligible for funding must be practical and investigative. The project title should be a question that the students are trying to answer by carrying out research. A range of topics are explored each year. Two recently funded projects, for example, have seen students sequencing the DNA of daffodils, and exploring whether they can make their school more carbon neutral. You can find details of other projects that have been funded by visiting the case studies page of our website.

Is there support to help apply for a grant?

The Royal Society's Schools Engagement team will support teachers throughout the application process. If you are interested, but not sure where to start, we recommend attending one of our free online intro sessions, which can be booked via our website. There, you'll also find further guidance on how to apply – including project plans that can be used to support your application. The team are always available via email or phone to answer any questions and provide feedback on ideas.

How do I apply?

Applications are open now, with the relevant instructions and links available on our website at **royalsociety.org/partnership**. The application process is carried out in two stages, and you must have your STEM partner in place before you apply. The application must ultimately be submitted by the school, though the STEM partner can support with its completion. The next deadline for applications is **29th November 2024**; don't forget that our team is always available to provide support.

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The Royal Society's Schools Engagement team provides resources and opportunities to support educators of 5- to 18-year-olds across the UK

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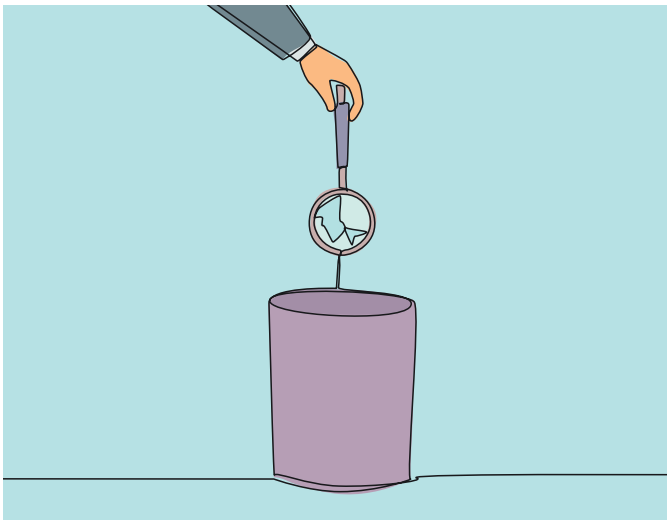
+ Develop a long-term sustainable relationship between your school and a STEM professional
+ Students can gain an insight into STEM careers and build key skills for their futures

Going, going...GONE?

Will doing away with single word judgements usher in a newer, much more nuanced Ofsted? **Adrian Lyons** isn't entirely convinced...

The recent announcement that Ofsted will no longer issue single-word judgments – i.e. 'Outstanding,' 'Good,' 'Requires Improvement' or 'Inadequate' – for a school's overall effectiveness is undoubtedly headline-grabbing. But it raises more questions than answers.

There could well be an unintended consequence of replacing one cliff-edge judgement with four. Add to that the problem that the education profession has lost faith in the validity of Ofsted judgements, with school leaders potentially having to worry about four unreliable judgements rather than one, and the move seems more about capturing those headlines than providing solutions.



Four key areas

Under the proposed new approach, Ofsted will continue to assess schools across four key areas – 'quality of education', 'behaviour and attendance', 'personal development' and 'leadership and management'. These areas will still be graded on a familiar four-point scale, however, leaving the framework largely intact.

The crux of the issue thus lies in the fact that while the overarching judgment is being removed, the grades in those four categories will likely make it clear what the overall judgment would have been. A school receiving a 'Requires Improvement' equivalent grade in 'quality of education', for instance, would have likely received the same grade for 'overall effectiveness' under the old system.

The proposal to end Ofsted's overall effectiveness grades was heavily flagged in the Labour Party's manifesto, so the government's announcement wasn't entirely surprising. However, its timing and the way in which the news was disseminated raised eyebrows. Reports suggest that even some senior Ofsted staff only found out about the decision via Mumsnet on the evening of Sunday September 1st, indicating that the DfE may have taken the lead on the decision, rather than it being a fully-coordinated effort alongside Ofsted.

Scorecard system

In any case, the announcement is more of a stopgap measure than any kind of final resolution. Ofsted has promised that a new framework will be introduced by next September, which will include a scorecard system. Details so far are sparse, but it's expected that the new system will shift focus back towards the progress of disadvantaged pupils and those with SEND – areas that many critics (and inspectors) argue have been overlooked under the current framework.

Ofsted itself has meanwhile announced that the much-anticipated report cards will include 'new criteria' to inform parents and carers about "*What a school is doing well, and what the areas for improvement are.*"

The new report cards are expected to provide parents and carers with more detailed information, highlighting schools' strengths and any areas for improvement. It's been suggested that one significant change will see 'attendance' become a standalone judgment separate from behaviour, reflecting its increasing importance in school assessments.

The Baker Clause

That said, there is potential for things to be done differently this year. Under the current framework, 'quality of education' – the assessment of how well schools conform to Ofsted's preferred curriculum model – has the greatest impact on the overall effectiveness judgement. No matter how good a school's behaviour is, regardless of its impact on pupils' personal development, the single word judgement was determined by the 'quality of education' judgement.

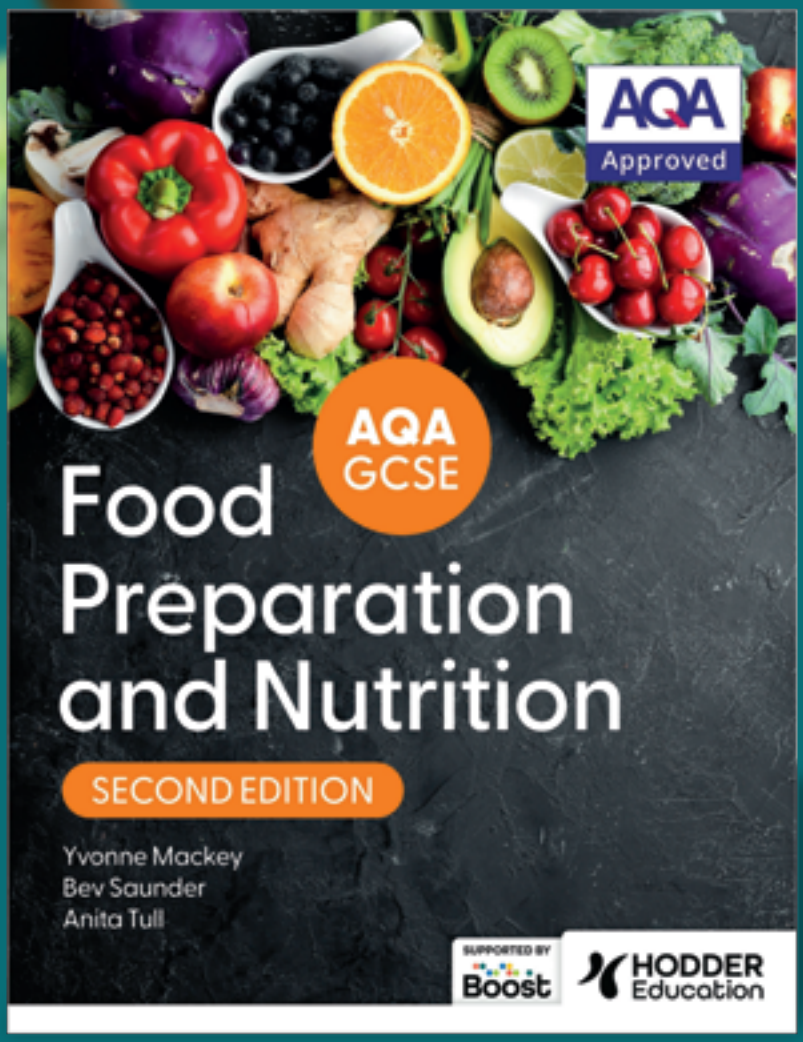
The upshot of this was that inspectors spent a disproportionate amount of time arriving at that judgement, with other areas becoming almost an afterthought. I have known inspections where the lead inspector has instructed a team member to check that the school is meeting the 'Baker Clause'. The team member reported back that he had been assured that they were, while still not knowing what it was. The lead inspector was happy that he could record the evidence.

Perhaps with four separate judgements and no overall judgement, more time and emphasis will be given to personal development, behaviour, attendance, and leadership and management, beyond sequencing the curriculum.

ABOUT THE AUTHOR

Adrian Lyons was one of His Majesty's Inspectors between 2005 and 2021 and now works with MATs, teacher training providers and LAs to support education; find out more at adrianlyonsconsulting.com

Updated for 24/25



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HODDER Education

Q&A

“Propel their learning further”

Tom Randell unpacks how Hodder Education’s AQA GCSE Food Preparation and Nutrition textbook and digital resources can take your students’ culinary knowledge to the next level

30 SECOND BRIEFING

AQA GCSE Food Preparation and Nutrition textbook and digital resources are endorsed by AQA and empower teachers to help their students tackle the practical and theoretical elements of their GCSE confidently with in-depth coverage, practice questions and lesson plans.

What’s new about AQA Food Preparation and Nutrition?

The AQA Food Preparation and Nutrition textbook takes the best of Hodder Education’s GCSE resources, updated with a fresh visually engaging design and contemporary examples. Approved by AQA, it has updated content suitable for students studying in 2024/25 and beyond, with new coverage of Fruit and Vegetables and Food Science that breaks the topics down with accessible language. Accompanying digital resources can assist teachers delivering their courses to GCSE students effectively.

What is included in the textbook?

The textbook has all the information needed to achieve top grades, including practice questions (and answers!) that students can take to keep track of their understanding. It also provides the details and facts needed to tackle GCSE exam questions. The textbook is partitioned into sections suitable for the AQA course, including specifics on the food science investigation and the food preparation task.

What about the accompanying digital resources?

Within the companion Boost teaching and learning resources, you get access to time-saving lesson plans, a customisable Course Plan, teacher notes and analytics reporting into student performance. The resources also engage the students with interactive quizzes, topic summaries and videos they can access anywhere. The digital resources support students as they move through the two-year course, and include exam practice questions that help them improve their exam technique.

How can teachers use textbook and digital resources in the classroom?

There are lots of practical applications teachers can use in class! From working through some of the accompanying recipe ideas to inspire students, to saving time with oven-ready lesson plans, individual activities and small group activities. You can pitch work at the right ability level for the student completing the tasks, and provide them with classroom and homework activities to propel their learning further.

How can teachers benefit from using textbook and digital resources?

The textbook and digital resources save you time, as you have access to out-the-box activities, course plans and recipe ideas. You can be confident that the textbook is fully endorsed by AQA, and meets the learning outcomes and content requirements of the latest GCSE specification. Expect all the practice questions, accessible writing, and coverage of the right content needed to give your students a powerful tool to be successful.

ABOUT TOM:
Tom Randell is Product Manager, Publishing – FE at Hodder Education

HODDER Education

Contact:
+44 (0)1235 827 720
education@hachette.co.uk

What are the benefits?

+ Features new sections to ensure complete coverage, including expanded skills and Fruit and Vegetables
+ A variety of engaging, visually appealing resources support teachers to build students’ confidence and understanding
+ Fully endorsed by AQA, providing all the tools needed to succeed in GCSE studies

CLASSROOM LIFE

All the right notes

James Tuck, head of music at Mayflower High School, Billericay, shares his experiences of encouraging a hands-on approach to the subject – and what it takes to break through the '*I can't sing*' barrier...

Before joining the staff of Mayflower High School back in 2013, I remember talking to the kids during my initial visit about their music lessons. I asked what they did, and they told me they '*Played on the keyboards*'. I knew that the school had a few other instruments, so I asked if they ever got to play any of those – '*Not really.*'

That's when I knew that if I was offered the job, I'd be able to make a difference. After being appointed, the SLT trusted me to do what I wanted to do over that initial year, and were prepared to back me when it came to the subject curriculum and the department's finances. That was a big motivation for me, and a key reason for me staying at the school for as long as I have.

"THE REASON FOR STUDYING MUSIC IS THAT BY DOING SO, WE GET TO LEARN WHAT IT IS TO BE HUMAN"

– JAMES TUCK, HEAD OF MUSIC

Lessons in humanity

Mayflower High School has around 1,600 students on roll, and is in a fairly affluent area. One challenge with that, though, has been overcoming what some parents see as the place of music within the wider curriculum, particularly from KS4 onwards.

Many parents would work in the City and often ask me, '*What's the point of learning music? How's that going to get them a job?*' My perspective is that the study of music has a much bigger impact on pupils' lives than that – so I'd often ask them, '*Do you want your children to be happy?*' I then go on to explain how the reason for studying music is that by doing so, we get to learn what it is to be human.

When it's your birthday, for example, others will celebrate the occasion by singing you *that* song. When people get married, there'll usually be music at the ceremony. When Olympic athletes win a gold medal, their national anthem will typically be played during the presentation ceremony. Music is something that exists completely within us. Small children will often sing before they can talk.

Teaching musicians

The most vital stage in a young person's musical development is KS3. In those three years, maybe for the first time in their lives, they'll have got to spend time with a professional music specialist.

That's why, when they walk through the door, one of the first things I'll always say to Y7s that we don't see them as students; we always refer to them as *musicians*.

The areas we focus on at KS3 are singing, 'band skills' (i.e. learning how to play an instrument as part of a larger group), and the technology of making music, with an emphasis on live performance.

We concentrate mainly on those three areas, rather than covering multiple smaller topics, as I feel that's the best way of appreciably developing students' strengths in music

> "The aim is always to get them performing their pieces live"

– especially with regards to voice, given how much boys' voices can change.

Avoiding isolation

Girls' vocal confidence can meanwhile diminish as they get older, which we try to address in Y9 by exploring rap and hip-hop, and helping our musicians appreciate the links between vocal confidence and succeeding at certain tasks in adult life, like taking part in job interviews and delivering presentations.

The 'band skills' component gives our musicians access to instruments they might not otherwise have the chance to play. Whatever they end up doing, however, we try to avoid lessons consisting of young musicians wearing headphones, sat in front of computers in their own isolated worlds. The aim is always to get them performing their pieces live.

A detention session

In practice, most Y7s will sing if asked, but not all. There was a lad in one of my Y7 singing classes earlier this year who simply refused to sing. My response was to tell him that if he was in a maths class he'd be expected to perform calculations. In an English class, he'd be expected to read and write. So in this singing class, he was expected to sing.

I then told him that if he didn't sing, I'd have no option but to follow the school's policy and place him in detention. He still refused.

I've never seen detentions as just a means of punishment; they're about finding ways of moving forward, because otherwise, teachers and learners will end up stuck in a loop. I found out from a call home that his parents were supportive of the detention, so when the time came, I went with the student to one of the music practice rooms for a while. I began by asking him how he was, by way of conversation. I then asked if he liked football, and established that we were both Arsenal fans.

That's when I started singing one of the team's chants to a piano accompaniment, and pretty soon, he was singing it back to me.

Having sensed that he was wary in lessons of how high he'd be required to sing, I used this impromptu 'detention session' as an opportunity to explore key changes, and after a few attempts, was able to show him where his vocal range lay. I explained that it wasn't so much that he hated singing; the issue was more around how he felt about using his voice to sing in front of others.

Underlying causes

Often, getting past that initial reluctance is about about finding some way in. There's no single way of doing that, though, since it depends on being able to build up an understanding of the individual concerned before it can work. The kickbacks you encounter when students are asked to sing won't be because they can't, but because at some point, someone has *told* them they can't, or they lack self-confidence. The underlying causes need to be picked apart.

I'm happy to say that quite a few Mayflower students have gone on to do great things in music. The nicest thing is when the musicians are leaving the class and someone simply says 'thank you'. Recently, one boy who was usually fairly quiet came up and said, '*Can I just shake your hand? I absolutely loved that.*' Just a genuinely lovely moment.

TECH TIPS

- **Don't scrimp**
  When equipping a music department, 'buy good, buy once'. Cutting corners can entail spending extra on fixing equipment later on, or prove to be a poor, off-putting experience for the musicians who'll be using it.
- **Prioritise portability**
  Imagine a talented saxophonist is sat before a desktop computer with a MIDI keyboard in front. How will they make music with a saxophone they can play, but a MIDI keyboard they might not know how to use? Where possible, use laptops in class – that way, our saxophonist can take a laptop into a rehearsal room with a mic and interface and get going immediately.
- **Get hands-on**
  The 'tech suite' approach can look impressive, but you should avoid any implied sense of '*Don't touch this, don't move this*', as that ignores a hugely important aspect of how music technology is learnt in practice – *by doing*. Entrust students with responsibility over the equipment they're using, and they'll repay it in kind.

ABRSM

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1 CPD for all

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3 On a literacy mission

Lexonik's mission to ensure '*Nobody should be limited because they can't read*' continues at pace in 2024.

The literacy intervention provider has seen the fastest growth rate yet in school take-up of its literacy programmes over the first half of the year, and is also evolving innovative new strands of delivery. Alongside its work with mainstream schools, Lexonik is now increasingly delivering to young people in secure care centres. The firm has also embarked on a partnership with Teesside University, through which trainee teachers are receiving instruction in vocabulary and reading strategies via the DfE's Independent Test Assessment Programme initiative. Find out more at **lexonik.co.uk**

4 Pen and paper power

An English education subject report produced by Ofsted in March 2024 highlighted both significant gaps in pupils' written and spoken language, and the pressing need to build basic skills (see **bit.ly/ts135-LS1**).

The necessity of balancing writing and reading has been well-documented. To enhance motricity and cognitive ability in the digital age, it's encouraged that pupils focus on cursive handwriting, and practice connecting movement with visual responses. Adoption of traditional pen and exercise books fosters precisely the kind of skills identified in the aforementioned report, which will in turn lead to further development and improvements. To find out more about how YPO can help with curriculum resources for teachers and pupils, visit **ypo.co.uk**

2 Well read

Reading regularly and by choice can produce profound and wide-ranging benefits that leave lifelong positive impacts on children's lives.

BookTrust's Bookbuzz reading programme for Y7 and Y8 offers schools a curated package of books and resources that will help to embed a 'reading for pleasure' culture, from the primary-secondary transition onward.

To find out more about Bookbuzz, and to receive a free copy of BookTrust's 'Reading for Pleasure at Key Stage 3' guide, visit **bit.ly/24rfpbt**

5 Oracy essentials

The English-Speaking Union believes every child should be able to make their voice heard. We work with teachers to improve oracy skills and cross-cultural understanding so that all young people – regardless of background – can thrive. Our resources, programmes and competitions help young people to better engage with the world, speak more confidently, listen attentively and understand different points of view.

Acquiring these skills will improve young people's standards of attainment, emotional intelligence and social skills, helping them live their lives to the fullest. To find out more, visit **ESU.org** or email **education@esu.org**

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School improvement advice for headteachers and SLT

FUNDING | BUDGETING | PROCUREMENT

Finding the FUNDING

Julia Harnden, Funding Specialist at ASCL, shares her thoughts on the current state of schools funding, and the steps that government and schools can take to start turning things round...

Are we in an unprecedented moment where school funding is concerned?
I don't necessarily think it's one-of-a-kind – there are layers to it. School leaders are past masters at being creative with the funding they've got, but what we're seeing now is that it's becoming harder to make decisions around saving and creating efficiencies that don't impact upon curriculum delivery, and thus pupil outcomes.

At the same time, we've seen increases in the number of pupils requiring SEND support in both mainstream and special schools, in ways that I feel are unprecedented. Additional money has been put into SEND and high needs, but it hasn't kept pace with the growth in demand, nor the rising costs of delivery.

As survey data from ASCL has shown [see panel on p55], class sizes have increased, alongside reductions in pastoral staff and the number of TAs. We've become used to hearing about those issues – but combine them with that growing demand for SEND support, and the outlook isn't good.

What should government, schools and local authorities prioritise when addressing those issues relating to SEND demand?
We need to make sure we first understand, where mainstream schools are concerned, what that provision should look like, and then decide how much money those schools should be given to provide inclusive education.

We're seeing delivery models being driven by financial constraints. Before this year's general election, there had been a national SEND improvement plan that included some laudable aims – but without any specific funding having been attached to it, it's difficult to see how those laudable aims were ever going to effect change within classrooms.

Schools are very clear as to what's expected of them, and the funding required to fulfil those expectations, so there's lots we can do – but we need to move away from trying to determine what good practice looks like according to the funding constraints of the moment.

Playing catch-up

Given where we are following the events of recent years, and with a relatively new government in place, what actions are you calling for on the part of policymakers? What levers should they be pulling?
One of our priorities would be to tackle child poverty. Do that, and you'll ensure that the most vulnerable in our society are properly cared for, which would feed through and make things better for everybody.

From a funding perspective, one of our asks from this year's autumn statement is to restore school funding to the point when it was last commonly agreed to be acceptable and sustainable, which we've identified as being 2010 levels.

Successive governments have insisted that funding levels in the years since have met, or even exceeded those of 2010, but there are reasons to doubt that. One is the way in which governments have calculated inflation using very broad inflation measures, which we don't think reflect the rate at which school costs have increased. Our costs have raced ahead, while we're still playing catch-up. We would want to see those numbers in real terms, according to real school costs.

There are also huge deficits building up across different local authorities. Cumulative deficits are calculated to exceed £3 billion by next March, with some of the money available from the core schools education budget disappearing into these 'black holes' of of deficit recovery. If government were to eradicate those deficits, it would pump much more of that available money into all settings, mainstream and special schools alike, and down to the frontline. That would be a huge step forward.

Is there enough recognition and discussion at policymaking level of the gaps between the funding schools receive and the costs they have to cover?
It's all very well examining national averages and concluding that, say, 60% of available funding 'tends' to be spent on teachers, 20% on support staff, some on premises and so forth. We understand why, from a government perspective, they'd want to look at the numbers in that way.

By definition, however, if you're

looking at 'averages', then you're assuming it's okay for a significant number of schools to fall below those averages, and they're the ones that are really going to suffer. Schools themselves have to examine a whole range of metrics – which, if done well, will be used to get as much money into classrooms as possible.

It's not always helpful to give aspirational operational costs. Given that a school leader's biggest cost will be curriculum delivery, how many teachers will they need delivering it in the way they want? Can they afford that many teachers – and if not, how will they move other areas of their spending around so that they can reach that 'optimal' number of teachers?

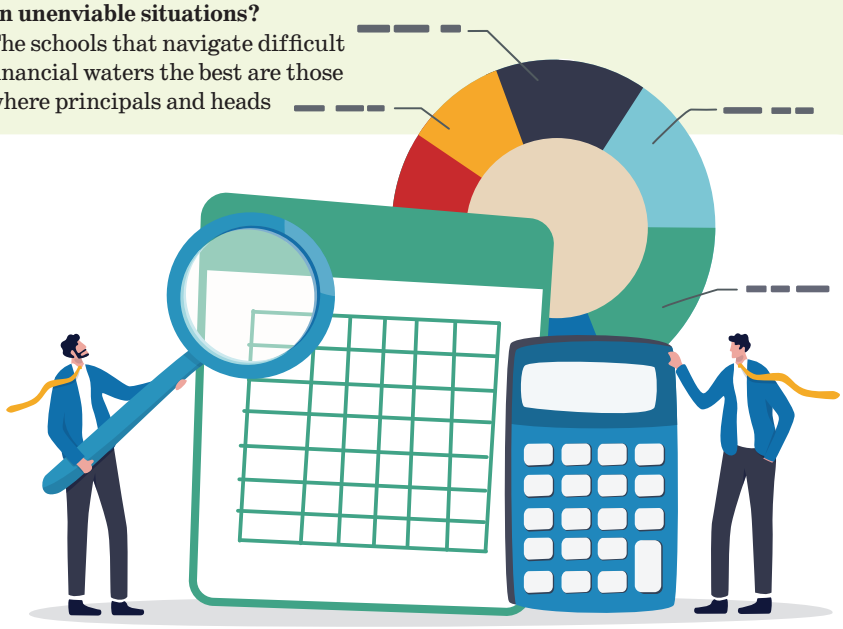
The priority for school leaders should be to look at their pupil-to-teacher ratios and how affordable they are. If you're working below your affordable pupil-to-teacher ratio, you can be certain of ending up in deficit. It's a question of understanding that, and putting mitigations in place to prevent it from happening, because reactive financial management is always going to be more expensive and negatively impactful.

Difficult waters

Can you call to mind any notable examples of schools that have managed to budget successfully, despite being in an unenviable situations?

The schools that navigate difficult financial waters the best are those where principals and heads work closely with their business leads on maintaining a rolling three-year financial plan. They'll review it regularly, joining the dots between known figures and assumptions as needed – a tricky task in itself – and managing uncertainty by identifying the best possible information available to them.

One view we often hear is that it's impossible for leadership to draw up a meaningful three-year plan because they simply don't know enough. I completely understand that, and can empathise, having previously been in that position myself – but it's ultimately not okay to



PROCUREMENT REFORM – key changes for schools and trusts

The new Procurement Act 2023 is set to go live on 28th October 2024, bringing significant changes that aim to make the transition from EU to UK law post-Brexit more transparent and straightforward.

The impacts of this new legislation will significantly change the way education budgets are spent. Education leaders should therefore take note of the following:

Refined procurement notices

One key change under the new Act is the refinement of procurement notices. These notices will be required throughout the lifecycle of the procurement process – from planning to tender, contract award, contract management and termination.

Whilst this will enhance transparency, it also risks adding administrative strain, exposure to data breaches and legal challenges. Schools and trusts must therefore improve their training, upgrade their data management systems and ensure their e-tendering systems can handle new demands.

A centralised hosting platform

The Act also introduces a new centralised digital platform for procurement, which will be rolled out in phases. This platform will gather all procurement-related information together in one place, making it easier for schools and trusts to access data on suppliers and those excluded from compliant spending. In theory, this will streamline the process, allowing suppliers to input their information once, and then have that information be directly accessible by education organisations.

To ensure that education organisations receive the best return on value and procure products compliantly, YPO advises schools and trusts to keep up with updates by visiting the government's Transforming Public Procurement page (see tiny.cc/ts137-BF1) or signing up for alerts.

Competitive routes to market

The new legislation replaces existing procurement processes with two competitive routes and a third direct award option:

- **Open Procedure** – A single-stage, unrestricted competition
- **Competitive Flexible Procedure** – Allows schools and trusts to design their own procurement processes
- **Direct Awards** – Enables contracts to be awarded without competition in specific situations; schools and trusts can continue to use frameworks and existing DPSs (though all DPSs will end in October 2028)

Flexible open frameworks and dynamic markets

Frameworks will still be used under the new Act, but they will operate in a slightly different way. Open frameworks will allow for more frequent appointments of new suppliers, enhancing flexibility and reducing the exclusion of smaller or newer suppliers. Dynamic Purchasing Systems (DPS) will be removed.

The Act will further see the introduction of Dynamic Markets, which require a Tender Notice for each procurement and cannot be used for contracts below a certain threshold.

For schools and trusts using a framework or DPS set up under the 2015 Public Contract Regulations, those rules will still apply when calling off contracts.

Andrea Smith is Procurement Director at YPO; to help schools and trusts navigate these changes, YPO is offering a range of resources and support – find out more at ypo.co.uk

"Reactive financial management is always going to be more expensive and negatively impactful"

not to do it, because you're much more likely to end up in a situation that negatively impacts on your pupils.

Is there any scope for novel funding models, of the sort we previously saw with the private finance initiative schemes of the early 2000s?
If we're talking capital costs, then it has to be acknowledged that the condition of the current school estate is dire. Regarding PFI schemes, there are a huge number of schools still in those contracts – we're only now starting to see some schools beginning to exit from them. There's an awful lot that government could learn about the way those contracts have been managed.

We wouldn't want to see a repeat of PFI in terms of how it was implemented previously, but the current state of the school and college estate is such that there has to be some sort of innovative approach brought in to get those buildings fit for purpose.

Are you aware of any improvements to the regional disparities in schools funding, or are things more stratified than ever?
This continues to be a challenge, due to the way in which funding is distributed. There will always be some regional differences – it seems hard to conceive of a time when there won't be – but what we can certainly do is look at how the money is being distributed.

An equitable – as opposed to equal – system of distribution would place priority on everyone having access to what they need to succeed. The national distribution policy we have is alive to the challenges involved in that. It's just taking a terribly long time to get there – largely because no one wants to lose any money from what they're currently receiving.

What recent trends and developments give you cause for optimism – whether it be ways in which some leaderships have utilised their funding, forms of revenue raising or anything else?
There are some excellent examples of schools working together, both formally and informally, to share expertise, resources and experience. This can be hugely beneficial, so we'd always want to see and encourage more of that.

We're a bit more cautious when it comes to revenue raising. It's ultimately a good thing, of course, which we'd never want to stop in cases where it's viable and helpful – but we mustn't become too reliant on it. There are schools in some areas where revenue raising simply isn't an option because of the communities that they're in.

Julia Harnden works with ASCL members in academies and maintained schools across mainstream and specialist provision, helping them develop sustainable strategic financial plans and build financial resilience through effective resource management and integrated curriculum and financial planning; for more information, visit ascl.org.uk

FEELING THE SQUEEZE

An ASCL survey of state school headteachers carried out in June this year found that almost three quarters of respondents predicted having to increase their class sizes over the coming year, due to lack of sufficient funding.

67.6% of those surveyed revealed that reductions in their budgets had already resulted in their class sizes growing within the past 12 months. Statistics released by the DfE have indicated that over a million children are currently taught in classes exceeding 30 pupils.

Further findings from the survey include the following:

- Nearly 60% of headteachers stated that they would have to reduce their curriculum offer
- Over half were in the process of withdrawing subsidised school trips
- Almost two thirds were in the position of having to cut back on their pastoral support provision
- 62% were needing to run an in-year deficit budget
- 70% reported having classrooms in need of refurbishment or replacement
- 40% were using school buildings with asbestos in ceilings and walls
- 8 in 10 respondents said they were unable to access sufficient capital funding to pay for repairs and maintenance.

Commenting on the findings, ASCL General Secretary, Pepe Di'Iasio, remarked "*[Schools] do everything they possibly can to minimise the impact on their pupils, but in the end there is nowhere left to go other than to reduce staffing numbers, with inevitable consequences for class sizes, the curriculum they are able to offer, and pastoral support.*"

REASONS TO TRY...

5 The Crown Estate sustainability resources

Inspire pupils to learn about sustainability in two new Minecraft Education worlds and develop the green skills they need to take action on climate change

30 SECOND BRIEFING

The Crown Estate has teamed up with Microsoft UK for a sustainability education initiative featuring two Minecraft Education worlds based on the iconic Windsor Great Park and an offshore wind farm. Both worlds come with curriculum-linked lesson plans and resources co-created with teachers, inspiring students to build their knowledge of biodiversity and renewable energy, and develop the green skills to take real world action.

1 NET-ZERO FUTURE

Do you want to tackle climate change in the classroom? As we learn more about its potentially catastrophic consequences, it becomes more important than ever that the UK meets its sustainability targets. The Crown Estate sees firsthand the implications of biodiversity loss across all its urban and rural holdings, from the iconic Windsor Great Park to the seabed and coastline it looks after. It has launched this initiative to help young people develop the green skills and sustainability knowledge they need to thrive in a net-zero future.

2 A POSITIVE APPROACH

There is growing eco-anxiety amongst young people, with 95 per cent of pupils in the UK saying they're worried about climate change. Schools, of course, want to help, but 70 per cent of teachers haven't been equipped or feel confident to cover it in lessons. That's where this initiative comes in. By framing climate change through the lens of biodiversity and renewable energy, it provides a positive, solutions-focused way to engage pupils, and the resources include all the information teachers need to feel confident with the topics without adding to your workload.

3 THE POWER OF VIRTUAL WORLDS

The Crown Estate has partnered with Microsoft UK to create two new worlds for Minecraft Education – the Offshore Wind Power Challenge, and the Conservation Quest at Windsor Great Park. These worlds empower students to explore real-world sustainability themes from the comfort of your classroom.

They can design and develop a new wind farm to power a town while protecting marine habitats or complete four quests to manage the ecological health of the historic Windsor Great Park.

THE CROWN ESTATE

Contact: Find out more and download resources at **www.thecrownestate.co.uk/minecraftedu**

4 CURRICULUM-LINKED LESSONS

To accompany the worlds, The Crown Estate has created a series of free, fun, curriculum-linked lesson plans aimed at ages 11-14 to help you and your pupils get the most out of this immersive experience. Building on the themes from different challenges and quests, they provide everything you need to get started – including a teacher guide, lesson slides, worksheets and guidance videos. Created with teachers to align with the National Curriculum, the lessons cover topics spanning science, geography and even engineering to help you include sustainability and green careers across your curriculum.

5 INSPIRE REAL-WORLD ACTION

Studies show that young people's fears about climate change are associated with a lack of agency – where they're not sure how to make a positive difference.

That's why these lessons culminate in taking real-world action, supported by the Taking Action Toolkit. It supports pupils to take the skills and knowledge they learn in the virtual worlds and apply them in their community.

By showing young people they can take meaningful action for nature recovery, you can grow their confidence and empower them to be changemakers.

KEY POINTS

You can access the lesson plans and Minecraft Education worlds at education.minecraft.net (Minecraft Education license required for world)

The resource pack comes with free guidance films, which tell you more and give top tips for using the lessons and Minecraft Education worlds with your class

The lessons were co-created with science and geography teachers alongside biodiversity experts at The Crown Estate

The flexible Taking Action Toolkit can be completed in a few hours, or over the course of a term, so you can use it in whatever way best suits you and your pupils

FOCUS ON: HUMANITIES

We look at out how the analytical, reasoning and interpersonal skills that will be prized by the employers in the coming years are being actively fostered in humanities classrooms across the country...

How can humanities subjects prepare students for the challenges of tomorrow?

THE AGENDA:

58 THE FUTURE IS GREEN

Tomorrow's economists, lawyers, planners and policymakers will all need a grounding in 'green knowledge' – which geography teachers are ideally placed to deliver...

61 ESSENTIAL TRUTHS

Why, argues John Lawson, do so many persist in placing science and teaching of religion in opposition to one another, when enlightened and compassionate thought ultimately requires elements of both?

62 WHOSE HISTORY?

If we're to teach a history that's true to our past while speaking to today's students, then the stories we draw on should be as diverse as possible, says Elena Stevens

The future IS GREEN

Tomorrow's economists, lawyers, planners and policymakers will all need a grounding in 'green knowledge' – which geography teachers are ideally placed to deliver...

Geography teachers often take pride in how their work supports young peoples' environmental awareness. Correspondingly, many geography students will have their own individual interests in environmental issues.

Such interests may now be more important than ever, in a workforce where sustainable approaches and green skills will to be needed to address the challenges that climate change presents for our economy, society and environment. But when we speak of 'green skills' and 'green jobs', what do we actually mean?

Strong public support

There's significant confusion and a number misconceptions around this developing area. Research by Public First has highlighted very low levels of knowledge regarding the green sector, a lack of clear career pathways into it, and how people see green jobs as 'A bit of a punt' (see tiny.cc/ts137-G1).

The CBI has additionally found that educating the public about net zero remains a 'huge task' – without which, it believes, people will be less likely to choose careers in the sector (see tiny.cc/ts137-G2).

What we do know is that there's strong public support for geography's contribution to green skills. According to YouGov polling, 70% of all UK adults agree that young people need to study geography to prepare them with the skills and knowledge needed to work in 'green jobs'.

However, geographers might do well to consider how effectively our subject connects lessons learnt in the classroom with young peoples' views about their career prospects. When asked about the factors influencing their subject choices in relation to their future careers, 51% of young people said it was to '*Earn a good salary*' – contrasting sharply with the 14% of young people seeking careers in which they could help address environmental or social concerns (see tiny.cc/ts137-G3).

> **"We can connect the science of climate change with its implications"**

A steep pyramid?

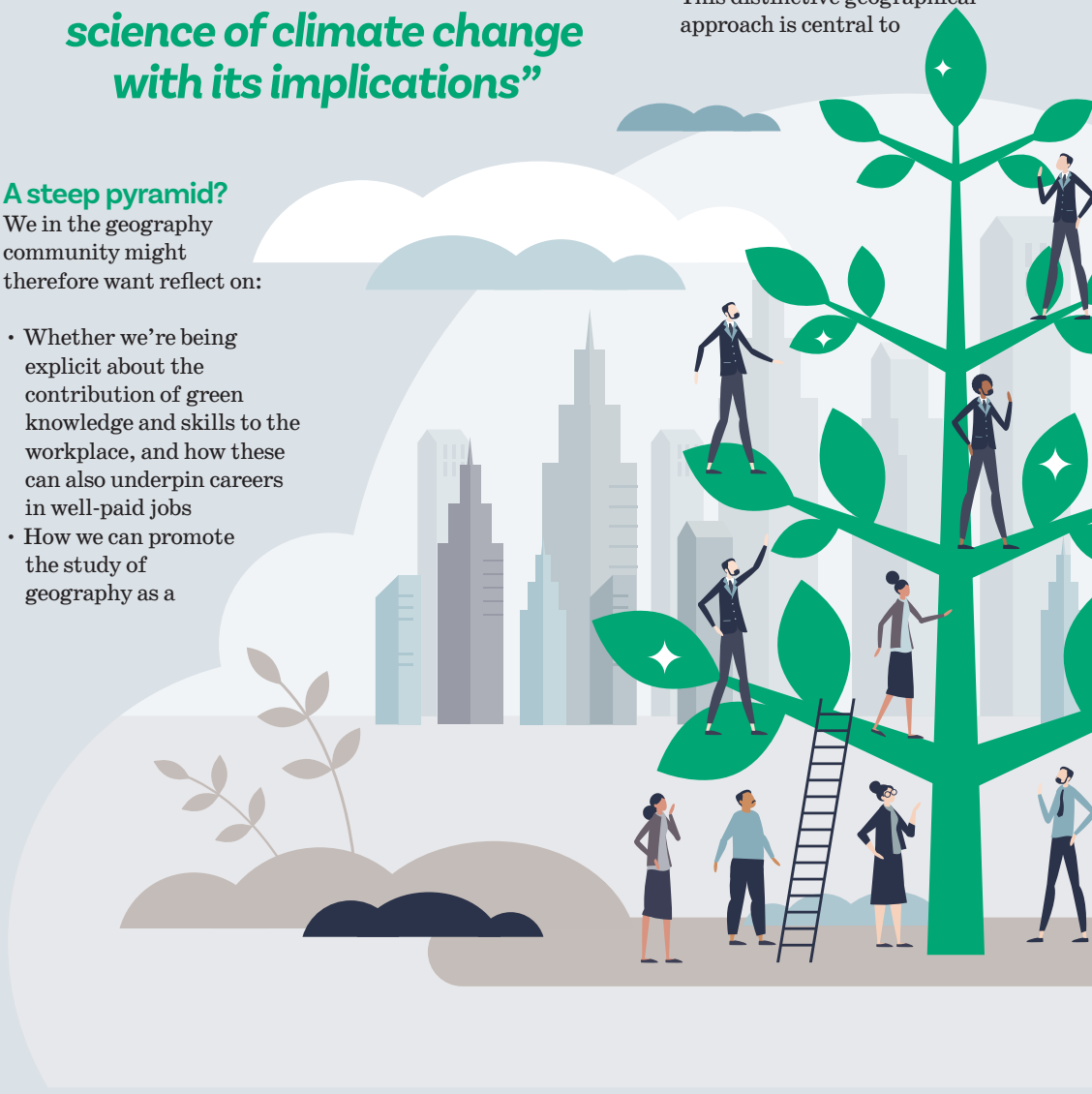
We in the geography community might therefore want reflect on:

- Whether we're being explicit about the contribution of green knowledge and skills to the workplace, and how these can also underpin careers in well-paid jobs
- How we can promote the study of geography as a way of supporting this
- Whether we present studying geography as a steep pyramid leading only to more geography at A Level and university, rather than something pupils can take with them into relevant vocational courses or apprenticeships

These are timely questions, given the government's upcoming independent review of the National Curriculum, and the forthcoming Green Careers Week taking place from 4th to 9th November.

So where might we find green knowledge and skills in the geography classroom? One way might be to present geography as adopting an 'integrated systems' approach to the human and physical worlds.

A key strength of the subject is how it enables young people to understand the ways in which interactions between people (human geography) and the environment (physical geography) shape and change places at different scales. This distinctive geographical approach is central to



understanding how, for example, climate change will transform the Earth's economies, societies and environments at a local, national and global scale in the years to come.

Charting the implications

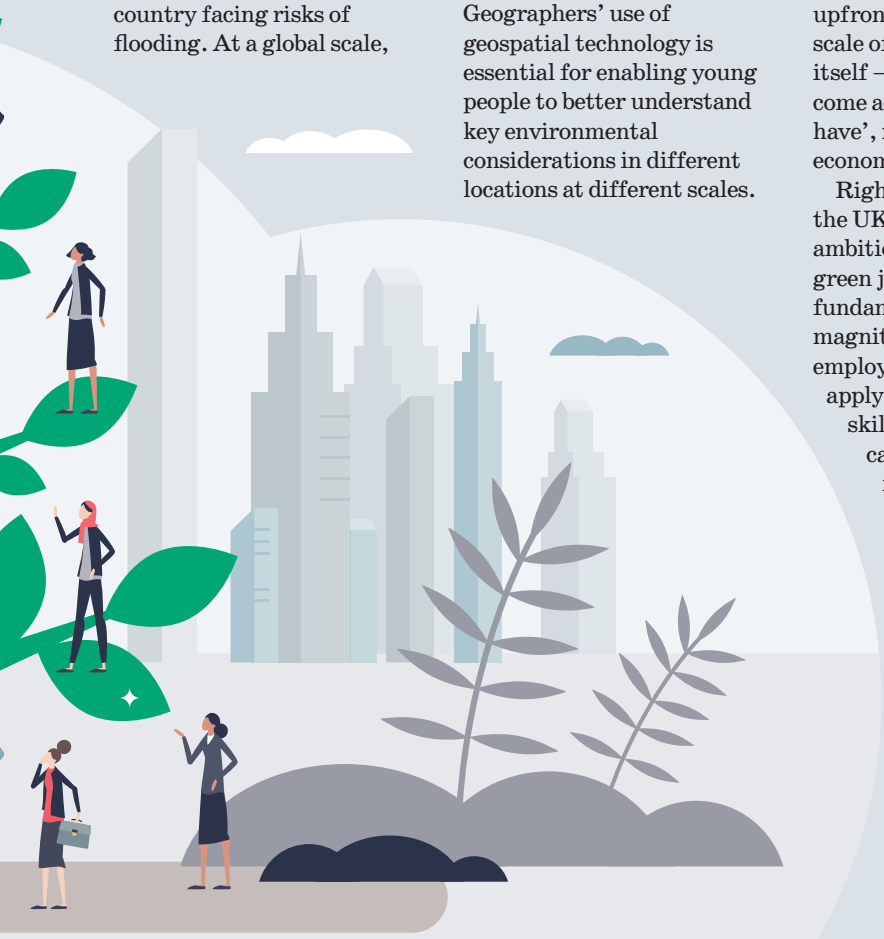
We can also connect the science of climate change with its implications, since geography provides the evidence for how our climate has, and will change. This includes teaching about the scale of anthropogenic carbon emissions and their impact on global warming – in addition to how well (or not) countries are working towards net zero emissions, so that global warming can be limited to 1.5°C above pre-industrial levels.

The implications of climate change will be profound. In the UK, for example, it could lead to a 61% increase in the number of people across the country facing risks of flooding. At a global scale, flood risks will extend far beyond the 1.8 billion people who face them currently.

Another potential avenue is to pursue fieldwork enquiries based on environmental interactions. As summer heatwaves become more common, a geographical enquiry into microclimates could reveal the impact of heat stresses on your school's buildings. The temperatures of different surfaces can be easily measured with an infrared thermometer (which only cost around £15), allowing pupils to investigate the cooling effects of shade, and how playground surface coverings can become extremely hot. The Royal Meteorological Society, for instance, has previously recorded the summer temperature of a school's astroturf as reaching well over 40°C!

Or consider geospatial analysis of landscapes. Geographers' use of geospatial technology is essential for enabling young people to better understand key environmental considerations in different locations at different scales. This might involve analysing green spaces in urban areas; tracking wildfires as they occur across the Mediterranean; identifying suitable sites for new housebuilding; or mapping the biodiversity of your school grounds.

Whether delivered in the classroom or during fieldwork, developing students' abilities to use geospatial technology parallels the work currently being undertaken by the Turing Institute and Geospatial Commission, which are using it to better plan how land can be used to support prosperity, while protecting the environment and adapting to climate change.



Fundamental changes

As well as being more explicit about the green knowledge and skills pupils stand to gain from studying geography, we may also need to more upfront about the size and scale of the green economy itself – which can sometimes come across as a 'Nice to have', rather than an economic necessity.

Right now, for example, the UK is pursuing a national ambition to create 2.5 million green jobs by 2030. A fundamental change of that magnitude will require employees who are ready to apply green knowledge and skills to a wide range of careers. This will include environmental monitoring and protection, yes – but also assorted legal and financial services; jobs within logistics and supply chains; land management and planning roles; and business leadership and marketing expertise.

A number of the new government's ambitions seem to connect directly with expanding green opportunities. The transition to clean power, for one, will call for geospatial expertise in order to locate renewables in suitable sites that can balance energy demands against restrictions put in place to protect vital landscapes.

Similarly, plans to make London the world's capital city for green finance will need traders with the knowledge and skills needed to provide sufficient returns for a whole series of bottom lines, both financial and those depending on sustainability.

Essential contributions

I therefore hope that geography teachers will use Green Careers Week to strengthen the development of green knowledge and skills among their young geographers, and draw out the essential contributions that our subject can make.

To help out, the Geographical Association has partnered with the Environment Agency to provide a range of resources that help connect the professional expertise of EA colleagues – who are currently managing and protecting the environment – with the geography classroom (see geography.org.uk/environment-agency-resources).

There are significant opportunities available for helping young people chart their own pathways into careers which will be individually rewarding to them, and of huge benefit to us all. And this work starts in the geography classroom.

ABOUT THE AUTHOR
Steve Brace (@SteveBraceGeog) is chief executive of the Geographical Association; for more information, visit geography.org.uk or follow @The_GA

5 REASONS TO TRY... IBM SkillsBuild

Teach your students the skills needed to succeed in the workplaces of tomorrow, with this series of resources themed around careers, tech and sustainability

30 SECOND BRIEFING

Hark is working in collaboration with IBM to introduce IBM SkillsBuild to schools across the UK. Empower your students with free, ready-made lessons and resources designed by experts. Equip every student with the skills they need to thrive in today's workforce by registering at harklondon.com/ibmskillsbuild

1 COMPREHENSIVE AND FREE

IBM SkillsBuild is a completely free platform offering over 200 expertly designed teacher resources, including lesson plans, PowerPoints, rubrics and worksheets. Developed in collaboration with teachers and industry leaders, these materials empower teachers to futureproof their students' careers. Dive into popular courses, such as 'Green Skills', 'AI', 'Mindfulness', and 'Agile', and help students earn digital badges that will boost their CVs, LinkedIn profiles, and UCAS applications. Through self-paced, student-led learning, IBM SkillsBuild caters to all abilities and even supports the 'skills' section of the Duke of Edinburgh Award.

2 INSPIRE FUTURE LEADERS WITH GREEN SKILLS

IBM SkillsBuild includes an extensive suite of Green Skills resources, to help teachers bring sustainability into the classroom. Created in collaboration with leading organisations like WWF-UK, the Nature Conservancy and the Chesapeake Bay Foundation, these resources explore how technology can address global environmental challenges. From lessons on climate change to virtual STEM career fairs, students can gain insights into sustainability careers and develop design thinking skills to solve real-world problems. Inspire your students to envision and build a sustainable future.

3 UNLOCK THE WORLD OF ARTIFICIAL INTELLIGENCE

IBM SkillsBuild's AI resources provide teachers and students with a foundational understanding of artificial intelligence, including natural language processing, ethical considerations and practical applications. Developed with input from tech and education experts, these resources allow educators to lead dynamic discussions on AI's impact. Students can engage in hands-on projects, such as building chatbots or programming virtual robots, making AI education accessible, exciting and relevant. Empower your students to understand and shape the future of AI.

Hark IN COLLABORATION WITH IBM SkillsBuild

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4 ENHANCE STUDENT WELLBEING

In partnership with the University of Oxford Mindfulness Centre, IBM SkillsBuild presents a range of mindfulness resources that help reduce stress, lower anxiety, and boost learning. These free, easy-to-follow resources teach foundational mindfulness concepts and provide practical exercises that can be integrated into daily routines. Teachers can use these tools to help students build resilience, improve focus and develop greater self-awareness. By incorporating mindfulness into the classroom, educators can create a more balanced and productive learning environment for all students.

5 MASTER AGILE FOR FUTURE WORKPLACE SUCCESS

IBM SkillsBuild's 'Agile' resources empower students with a methodology that's transforming the modern workplace. By integrating these Agile courses into your lessons, you can equip students with the skills needed to adapt, problem-solve and collaborate effectively in uncertain environments. As Agile approaches redefine how we work, related skills are becoming essential in today's job market. Students develop into proactive problem-solvers and change-makers, ready to thrive in any challenge. Bring this transformative approach into your classroom, and prepare students for success in their future careers.

Key Points

Free Expert Resources: Access over 200 free resources – including lesson plans and worksheets – developed by teachers and industry experts to enrich classroom learning on modern skills.

Digital Badges: Students earn industry-recognised digital badges that will enhance their CVs, LinkedIn profiles and UCAS applications, giving them a competitive edge in the job market.

Self-Paced Learning: IBM SkillsBuild offers self-paced courses that cater to students of all abilities, encouraging independence and personal growth in key career skills.

Industry Partnerships: Resources created with leaders like WWF-UK and the University of Oxford Mindfulness Centre ensure content is relevant, impactful and aligned with real-world demands.

Essential truths

Why, argues **John Lawson**, do so many persist in placing science and teaching of religion in opposition to one another, when enlightened and compassionate thought ultimately requires elements of both?

One of my principal reasons for committing to Catholic education is the binding principle of truth. Many teenagers in state schools assume that science disproves God – it doesn't. Catholic schools teach biology, chemistry, physics, and metaphysics in a complementary fashion.

The science teachers who work in them maintain precisely the kind of collective fidelity to scientific rigour you'd expect. The theologians within such schools will meanwhile pose important questions, rather than impose definitive answers.

Black holes

As an infant, I used to sit on a 'magic carpet' at the day's end to hear enchanting fairy stories. There was one story in which a beautiful princess kissed a frog that magically turned into a handsome prince. However, many university science professors will insist that this can (eventually, given the right conditions) be a true story.

They're wrong. Microevolution is observable. Macroevolution has never been successfully observed, yet in the supposedly Godless realm of the science labs, we're taught to entertain it as a possibility. Microevolution might underpin the survival of a species, but unguided macroevolution doesn't convincingly explain the arrivals of new species.

Macro isn't holy writ; it's riddled with black holes. Logic further teaches us that naturalism doesn't explain the origins of the universe. My own immaterial mind marvels at the construction of the natural world *ex nihilo* and the human body. Simple cells are far more reliant on micro-technology than Darwin ever realised. Scientific technology has since established that much.

Breaking bread

Despite this, however, Richard Dawkins nonetheless continues to attack religion as a "*Virus we should be inoculated against.*" Really? Why can't teenagers believe in the Resurrection and contemplate eternal happiness?

Religion can be poorly taught, of course (as can science) – but when taught well, religion can reveal essential truths and insights that enrich us all. The impact that the historical figure of Jesus had on global history is still greater than that of any monarch or politician. Why? Well, what if the meaning of life really *is* to love one another and create unique selves?

It's hard to dismiss Einstein's famous adage, which holds that, "*Science without religion is lame; religion without science is blind.*" I may have been blind at one time, but I'm now able to perceive a fine-tuned universe, thanks in part to the inspirational science teachers I often break bread with.

Theologians seek to praise science, not bury it. To that end, we will also politely insist that science has not, in fact, buried God. Erudite scientists will exhort the value of religion because they recognise the Church's seminal role in seeking truth and unity across diverse academic disciplines. It was, after all, the Church that created the universities which went on to shape Western Civilisation.

Give and take

During my school career, I taught global ethics, which I would frame around five vital ontological questions:

Origin: *where did I come from?*
Identity: *who am I, and what might I become?*
Meaning: *what is the meaning and purpose of life?*
Morality: *who can tell me how to live ethically?*
Destiny: *do I have a destiny in this life and beyond?*

If we aren't created, then what distinguishes us from cockroaches? If we reduce ourselves to mere animals, then we shouldn't be shocked when we're treated like animals.

God alone underwrites inalienable human rights; rights granted by politicians are arbitrary. What governments give, they often take away – so how can 'scientism' be our sole guide to those five ontological questions?

Every prejudice is fuelled by reductionism. The reductive idea that 'God questions' are worthless is unworthy of any education system.

Marginalising RE in schools evidently fosters agnosticism, atheism, and religious scepticism, rather than allowing children to consider themselves as unconditionally loved members of God's creation. RE doesn't indoctrinate, but not teaching it at all might do. Education should open minds, not close them.

ABOUT THE AUTHOR
John Lawson is a former secondary teacher, now serving as a foundation governor while running a tutoring service, and author of the book The Successful (Less Stressful) Student (Outskirts Press, £11.95); find out more at prep4successnow.wordpress.com or follow @johninpompano

Whose history?

If we're to teach a history that's true to our past while speaking to today's students, then the stories we draw on should be as diverse as possible, says **Elena Stevens**

As a school subject, history has great potential for helping to develop pupils' identities. It provides opportunities to engage with ideas, values and practices in such a manner that – many education writers suggest – equips young people to navigate the challenges of adult life.

History offers young people the chance, as historian Arthur Marwick put it, to find 'their bearings', or to anchor themselves in the present whilst claiming inspiration and affirmation from the past. Helping pupils to do this seems to be one of the most important goals of history education.

However, it is important that we carefully consider the types of identities we want to help pupils to develop, and the histories that might be chosen to promote such a project. The nature of our multicultural society demands a broadening of traditional understandings of Britishness, and recent cultural and political events have challenged us, as teachers, to rethink the ways in which we transmit notions of local, national and even global identity.

We realise the need to construct curricula that reflect the diversity of society around us; to plan enquiries that acknowledge a range of perspectives, yet remain accessible and engaging, and to teach lessons that are firmly historical – rather than political, ideological or civic. Faced with such challenges, however, it can be difficult to know where to begin.

> **"People in the past did not exist simply to stand for one thing or another"**

Island story

Debate about the selection of content within the history curriculum has been ongoing since the introduction of the first National Curriculum in England in 1988. Recently, it has come to focus on the importance of broadening frames of reference to include non-British and non-European histories, and to move beyond the traditional narratives of power, nationality and political action – a curriculum characterised by historian Peter Mandler as 'Hitler and the Henries' (see tiny.cc/ts137-H1).

Much of this debate emerged in response to the perceived failings of the National Curriculum's most recent iteration. In 2010, Michael Gove's espousal of the 'island story' sought to move the history curriculum in a rather exclusionist, self-congratulatory direction. As Secretary of State for Education, Gove argued that the existing history curriculum denied pupils the opportunity to learn "*One of the most inspiring stories I know – the history of our United Kingdom*".

Though Gove's draft curriculum was hewn of some of its more jingoistic overtones, the final 2013 curriculum nevertheless prescribed a diet composed largely of British history. Reference was made to a 'significant society or issue in world history', but this seems to have been envisaged as something of an adjunct to the more coherent history of 'these islands' from 'the earliest times to the present day' (see tiny.cc/ts137-H2).

Illuminating complexity

Pupils do, of course, need to develop an understanding of the societies in which they live. It is important that history lessons help young people to gain a sense of place, and to appreciate the social, political and cultural forces that shape modern British life. However, two aspects of Gove's vision are problematic.

The first is the notion that the history of our United Kingdom and world history are distinct from one another. The story of Britain is the story of movement, heterogeneity and integration; Britain has been shaped by successive invasions and migrations, and different peoples have coexisted for hundreds, if not thousands, of years. British history is world history.

Secondly, Gove presumes that 'our island story' is one that ought to 'inspire' pupils, with its litany of heroic characters conceived as contemporary role models. In reality, the history of Britain and British people is much more complicated. It is

punctuated with stories of exploitation, violence, corruption and rejection. It is also strewn with complex individuals, whose lives cannot be taken to exemplify a certain theme, idea or experience.

People in the past did not exist simply to stand for one thing or another, and it does a disservice to these people's lives (and to the discipline of history) if we reduce them to archetypes or caricatures. The best history is history that illuminates the complexity of the past.

Shifting understanding

History is an exciting, dynamic discipline; new evidence and interpretation can offer up perspectives that shift our understanding, or make us think about events, people or ideas in new ways.

The same is true of history teaching. If our lessons can expose pupils to new histories – or even shed new light on histories with which young people have become familiar by the time they enter our classrooms – then we have gone some way towards exposing the complexity of history.

This mission was summed up well in the Swann Report of 1985 (see bit.ly/ts137-H3), which commented on the education of children from minority ethnic backgrounds. The report concluded that education ought to represent "*Something more than the reinforcement of the beliefs, values and identity which each child brings to school.*"

History lessons can serve a vital role in challenging preconceived ideas about people in both the past and the present, equipping young people to combat deeper and more problematic misconceptions.

A decolonising project

The events of 2020 and 2021 underlined the importance of challenging received histories of Empire, slavery, abolition and race, in particular. The murder of George Floyd by a police officer in Minneapolis, Minnesota in May 2020 sparked global outrage and inspired a wave of activism. In the UK, a number of protestors tore down or defaced several statues dedicated to individuals who had links to the slave trade – most notably, a statue depicting the Bristol merchant and slave trader Edward Colston.

In the wake of these activities, schools were urged to rethink the manner in which certain histories were delivered. The notion of decolonising the curriculum (already established as an area of focus within university and academic circles) was popularised, and Twitter became awash with initiatives and inspiration for rethinking the manner in which British schools delivered Black history.

For me, the most important message to come out of these initiatives has been the importance of having lessons and activities be led by the stories or histories that are being introduced. It is not simply a case of inserting a Black abolitionist campaigner into a scheme of work on the abolition movement, or a female scientist into an enquiry on the development of modern medicine; truly diverse, decolonised history is not built on tokenistic reference to marginalised individuals simply for the sake of it. Doing so would only underline the impression that certain identities are peripheral to the story of British life and society.

Instead, the decolonising project has taught us that these histories – as well as our pupils – are best served by incorporating the experiences of overlooked individuals into the main narrative, and allowing these individuals' stories to alter this narrative, if necessary.

Quoting the work of Michael Rothberg, history teacher and school leader Nick Dennis has referred to this as 'multidirectional' history. Rather than viewing Black history as "*Separate, superficial and distracting from the real history that needs to be taught*", the approach involves constant reappraisal, renegotiation and cross-referencing of the past, facilitating greater creativity and complexity when planning and re-planning schemes of work.

Making room for stories

The same is true of women's history and histories of gender and sexuality; it is important to avoid creating the impression that the experiences of women, for example, were (or are) necessarily distinct simply because of their gender, or that it is only relevant to explore the lives of women through certain historical prisms (like social and domestic history, for example).

If we want to lay claim to a truly diverse curriculum, we need to make room for stories that move beyond the traditional focus on heroes, conquerors and pioneers, exploring instead the real, lived experiences of a whole range of individuals.

Fundamentally, we also need to emphasise the value of these kinds of stories, encouraging pupils to conceive of history in the broadest possible terms. By adopting such an approach, pupils will begin to recognise themselves in the people of the past – and this will prove invaluable in the process of identity construction in the present.

ABOUT THE AUTHOR
Elena Stevens is a secondary school history teacher; this article is based on an abridged extract from her book, *40 Ways to Diversify the History Curriculum* (£16.99, Crown House Publishing)

REASONS TO TRY...

4 National Army Museum CPD

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1 EXPERT SUBJECT KNOWLEDGE

The National Army Museum is the leading authority on the history of the British Army. The CPD programme draws on the expertise of a team comprising historians, curators and researchers with a variety of specialisms, who will deliver 45-minute talks followed by 10-minute Q&As.

2 CURRICULUM-LINKED ACROSS KS3-5

The online CPD sessions are designed to support teaching key areas of history at KS3, GCSE and A Level. The sessions examine aspects of topics that include the British Civil Wars, the British Empire, the World Wars and the Cold War.

3 FREE TO ATTEND

The CPD sessions are free to attend – you just need to register by completing a simple online sign-up form. Sessions are delivered online via Zoom between 4pm and 5pm, and it's also possible to schedule group bookings, so that CPD can be delivered to multiple history department colleagues at once.

4 BESPOKE DIGITAL RESOURCE PACKS

Every attendee of the CPD sessions will receive a bespoke digital resource pack containing a range of source material based on the museum's collections. Tailored to the topic of each session, these include photographs and images of artefacts and artworks that can be used to further support your teaching.

Contact:
education@nam.ac.uk

At a glance

+ For full details of the online History Teacher CPD programme and to book your place, visit nam.ac.uk/schools/cpd-history-teachers

+ You can explore our selection of free online learning resources at nam.ac.uk/schools/learning-resources

+ The Museum offers free workshops for schools either in person or online. Find out more at nam.ac.uk/schools/workshops

WHY I LOVE...

...Strictly RE – An in-person event that RE teachers won't want to miss

ABOUT ME:

NAME:
Chris Giles

JOB ROLE:
Head of religious studies

SCHOOL:
South Bromsgrove High, Worcestershire

A sense of community

As a secondary teacher of religious studies, I'm thrilled for the return of the in-person Strictly RE conference in Birmingham after five years! Having attended numerous conferences, Strictly RE stands out for its sense of community and the unique opportunity it offers to share ideas in person – which is especially valuable in our sometimes isolating subject.

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The conference also features exhibitor stands where you can discover new teaching resources and build lasting relationships.

While online meetings have their benefits, nothing compares to the social and networking opportunities of in-person events. Don't miss out – book your place today and get an **Early Bird discount of £15 for the first 50 registrants! NATRE members receive an additional £25 off.**

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A recent Harvard Business Review survey from 2024 found that 95% of people believe face-to-face meetings are essential for building strong, long-term relationships - something I've certainly found to be true!

NATRE

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FEEL THE FORCE

Kit Betts-Masters shares the details of how he got into physics teaching, and explains why others should consider doing the same...

Alright, I admit it. *physics is weird*. Which, by extension, surely makes us physics teachers a special bunch.

A very different subject from 'the other two', looked at in a different way it's not weird at all. In fact, it's the most beautiful, elegant subject there is, with pure and calculable outcomes to challenging problems. It's amazing and I love it.

Content and application

As the sole physics teacher in most of the schools I've worked at, it's been a lonely role. And a high pressure one, too. But at the same time, I've valued being placed in a position of trust and the considerable amount of autonomy I've been granted throughout my career. For that reason alone, I wouldn't have done anything differently.

I started teaching physics out of necessity. At my first school, they had no one. Having previously earned 120 engineering credits in my architecture degree, I decided to put my hand up and said, "*I'll give it a go.*" Later, after I heard the school's head of science say, "*We're really glad you're here,*" and one of the students say, "*Thanks for teaching us, Sir,*" I became hooked. That student's an architect now.

If your school needs a physics teacher, you should think about giving it a go. The best way to get started is to complete a subject knowledge enhancement course, such as those offered by the Institute of Physics (IoP), which can take you through all you need to know to become a GCSE or A Level physics teacher.

It *is* challenging, though. You need to be honest with yourself, because physics is *hard*. Preparing for lessons requires you to master both the course content and its application. In day-to-day teaching you're constantly put into situations where you need to think hard about how to explain the concepts and how to reach the solutions. But as I say to my students, those things which are hard to understand are often the most interesting...

> **"Successive cohorts are consistently amazed at what we're able to do in the lab"**

Practical problems

Luckily, the resources out there to help you are incredibly rich. I'd strongly suggest following a high quality scheme of work and reading it closely, as there's great value to be had in their explanations of how to convey ideas. In time, you'll develop the wisdom needed to discern where students are getting hung up, and where misconceptions might be coming from. Again, the IoP is a wealth of knowledge in this area.

You can also count on there being an amazing online community sharing plenty of advice and resources, plus lots of help available from experts who'll be willing to answer any questions without patronising you.

It might not surprise you to learn that science teachers' jokes aren't especially strong. One favourite of mine is "*If it moves, it's biology; if it stinks, it's chemistry; and if it doesn't work, it's physics.*"

Because yes, there have been numerous situations in my career when I've struggled to get experiments doing what they're supposed to do. I'll happily admit that on a few occasions, I've not succeeded at all.

And yet, more often than not, with a bit of research, some hard work and determination – as well as close collaboration with our science technicians – we've managed get things going and produce results that are in line with the physical laws we're trying to demonstrate to our students.

And if, for all your efforts, that particular practical is simply a non-starter, you can always turn to some excellent computer simulations. You'll be surprised at how much students can enjoy the process of acquiring large data sets and analysing them with the aid of computer spreadsheets.

Treated like a magician

With all that said about how challenging it is to be a physics teacher, be aware that the most important thing to get right isn't that hard at all – namely, *getting young people enthusiastic about physics*.

I can still remember interviewing for my first role as head of physics. The other candidates had been complaining that the interview lesson concerned the 'dry' topic of thermal physics. In my lesson, I included an explanation of how fridges and steam engines work. I might have thrown a breakdown of rocket propulsion in there too. And I knew my lesson was going to be fascinating, and that I would get the job.

Because there are *so many ways* of making students fall

in love with physics. Successive cohorts are consistently amazed at what we're able to do in the lab – whether it's measuring gravitational acceleration, getting close to Planck's constant or estimating the age of the universe.

You'll be embraced as the one person who knows how to use the data logging set. You'll come to be known as the only one able to obtain accurate results from the ageing set of radioactive sources in your lab, and getting the spark counter or electron beam to actually work. When you can get these things right, students and staff alike will treat you like a magician.

But then, you're also half-expected to be the slightly unhinged teacher out there on the playing fields, launching parachutes or tasking their class with measuring the speed of sound. Or indeed launching projectiles around gym when teaching about energy, accuracy or Hooke's Law. Anything to get your classes excited about what we all know, deep down, is the *coolest* of the sciences…

You're the one leading trips to the Space Centre, master classes at top universities or voyages abroad to CERN and Iceland. You're at school some evenings, with a class on the school roof (architecture and risk assessments depending), looking through a telescope or even launching rockets into space.

I love teaching physics, and all of what I've described is possible for you to experience too. It's a great job to have within a school – perhaps even the best.

PRACTICAL PAIN POINTS

Here are five common issues I see students struggling with in A Level practical physics lessons, and what you can do about them…

1 INEXPERIENCE
The pandemic-era school closures, coupled with the ways science is now taught, means that your students will have less experience conducting practicals. Try to use more frequent, more simple practicals to improve their problem-solving and equipment handling skills.

2 GROUP WORK
In a similar vein, you may well find that your students are relatively unfamiliar with participating in group work. Address this by actively involving them in your own demonstrations, so that you can model the skill of teamwork.

3 INFORMATION OVERLOAD
Some students can struggle with following the complex written methods often found in physics teaching. Where possible, break down your practical delivery into multiple lessons, beginning with a group reading and demonstration of the method.

4 UNREALISTIC EXPECTATIONS
This is something I personally suffer from a great deal. You need to accept that some students might not complete every variation of an experiment, so try dedicating separate lessons to explanation, setup, data collection and analysis. (You can still allow time for extending the practical, for the benefit of more enthusiastic and capable group members.)

5 PREPARATION AND EQUIPMENT
Involve your technicians in the setting up of demo sets beforehand. Allow yourself enough time to go through the method and anticipate any issues they might have, such as faulty equipment, or even something as simple as keeping key equipment in place while performing some other action with your hands. Try to then allocate time for a preliminary test to take place before the data collection lesson itself.

ABOUT THE AUTHOR
Kit Betts-Masters is a lead practitioner for science and produces physics, education and technology videos for YouTube under the username @KitBetts-Masters. For more information, visit evaluateeverything.co.uk

First line of DEFENCE

Once upon a time, teachers could leave cybersecurity to the IT experts – but guarding against online threats directed at school infrastructure and pupils is now everyone's duty, says **Megan Morris**

Cybersecurity may seem like a distant concern for educators, with most schools having dedicated IT departments in place to handle any potential issues. Yet as the digital landscape continues to evolve, it's becoming increasingly clear that teachers can also have a critical role to play in maintaining a safe online environment for their pupils and school as a whole.

At a time when technology is becoming ever more deeply integrated into our lives, maintaining the security of devices like smartphones, laptops and tablets has become an essential task that we can't afford to overlook. The target may be the personal data we store on them, or the services we access through them – in any case, cyberattacks pose a constant and very real threat. And for schools, the stakes are particularly high.

Beyond the IT department

According to ParentPay's cybersecurity guide for schools (see parentpay.com/cyber-security-guide), the UK education sector faces a disproportionately large number of cyber threats compared to many other business sectors.

The government's 2023 Cyber Security Breaches Survey (see **tiny.cc/ts137-CS1)** highlighted that 63% of secondary schools and 41% of primary schools have experienced some form of breach or attack.

The threats are plainly serious, but that still leaves the question – why should educators spend time worrying about cybersecurity, when educational institutions have IT departments and specialists on hand to defend against such threats?

While it's true that schools have IT professionals in place tasked with safeguarding their systems, the strength of any cybersecurity effort ultimately depends upon the actions of *all* staff members – and that includes teachers. A school's data is only as secure as its weakest link. And that weak link could be anyone who neglects to follow good cybersecurity practices.

A single breach can be enough to expose pupils' personal information, disrupt classroom activities or even cause long-term damage to the school's operations. Cyberattacks that deploy measures such as ransomware and phishing won't just be aimed at your IT personnel. They can, and will, target *anyone*, including teachers.

An April 2022 report produced by SWGfL and the University of Kent (see tiny.cc/ts137-CS2) revealed that while teachers rely heavily on the internet for their work, many schools are still lagging behind in the cybersecurity training they provide. More than 60% of schools hadn't rolled out such training, while one in three lacked any kind of cybersecurity policy at all – thus leaving their teachers both vulnerable to attacks, and unprepared to deal with the consequences.

An essential safeguarding tool

For schools, the implications of a cyberattack can go far beyond financial loss or organisational disruption. The safety of pupils can be put at risk – as was made abundantly clear following an incident in 2018, when the CCTV systems of several schools in Blackpool were allegedly compromised and their video feeds livestreamed on the internet. This underscores the serious risks that weak cybersecurity in schools can pose. Schools have a legal and ethical obligation to protect their pupils, with strong cybersecurity practices being a key part of that responsibility.

Educators must understand that they're not just safeguarding their devices or data; they're also protecting their pupils from real-world harms, making it

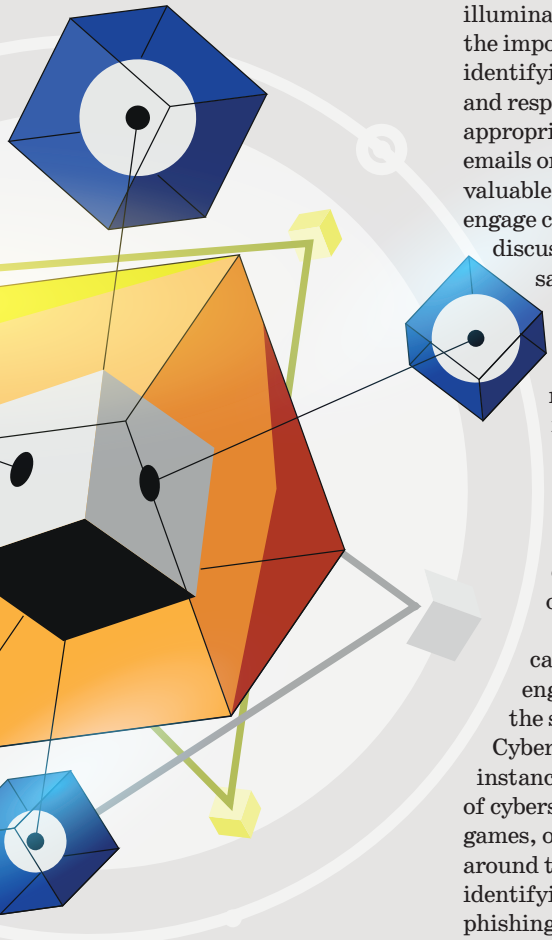
> **"Many schools are still lagging behind in the cybersecurity training they provide"**

essential that cybersecurity measures be integrated into schools' broader safeguarding policies.

Cybersecurity and the curriculum

One of the best ways of ensuring pupils understand the importance of cybersecurity is to weave it into everyday lessons. Cybersecurity doesn't have to be taught in isolation; it can be introduced within existing subjects. Whether it's in science, maths or social studies, exploring the real-world applications of cybersecurity can make the concept much more relevant and engaging.

Teachers could, for example, begin a class discussion by asking pupils to list the apps and websites they use regularly. By writing these down on the board, teachers can highlight the sheer number of different services and platforms that have access to students' personal information. This can open up a conversation around the importance of using secure passwords and engaging in safe online practices. Talking about cybersecurity in this way can help to ensure that children understand the importance of keeping themselves secure online.



How to make cybersecurity fun

The topic of cybersecurity can feel somewhat daunting at first, but by breaking it down into manageable activities and discrete discussions, it can be made more accessible – and perhaps even fun.

Role-playing various online attack scenarios can give pupils some illuminating insights into the important process of identifying potential threats and responding appropriately to suspicious emails or requests. Another valuable activity can be to engage children in discussions around the safe online practices they currently observe in their own time – such as being mindful of the information they share with others, avoiding suspicious links and limiting the overall amount of time they spend online.

These discussions can be made more engaging still through the shrewd use of games. CyberGamesUK, for instance, develops a range of cybersecurity-themed games, one of which is based around the process of identifying and detecting of phishing emails (see cybergamesuk.com). Teachers can begin by explaining what phishing is, before directing pupils to enter the browser-based CyberCity game and begin the 'Flower Shop' activity.

Teachers can then monitor their pupils' progress through the game, stepping in when they might have questions. Such games provide a way for pupils to develop real-world cybersecurity skills via interactive means, thus making for an enjoyable learning process.

Cybersecurity champions

The technical aspects of your school's cybersecurity may ultimately fall within the auspices of your school's IT department, but maintaining the effectiveness of those cybersecurity measures is very much a team effort.

It shouldn't be forgotten that teachers play a vital role in reinforcing good cybersecurity practice within the classroom. By building an awareness of the basics of cybersecurity, and then in turn passing this knowledge on to their pupils, teachers will not only be protecting themselves, but also empowering their pupils to navigate the digital world more safely.

Cybersecurity has long ceased being 'just' an IT issue. It's an educational one, too – so let's make sure we're all doing our part.

ABOUT THE AUTHOR

Megan Morris is Head of Brand – Cashless Payments & Parental Engagement at ParentPay; with 4+ years in edtech, Megan has valuable insights into the challenges schools face with parental engagement and cashless payments, whilst understanding effective solutions to support modern educators. Find out more at parentpay.com or follow @parentpay

CLASSROOM CYBERSECURITY – WHERE TO START

While the lack of formal cyber security training in schools certainly needs to be addressed, there are also some simple steps teachers can take right now to protect themselves and their pupils from cyber attacks.

- **Use strong passwords**
  Remind pupils to always use complex passwords that include upper and lowercase letters, numbers *and* special characters. Thereafter, they should be regularly updated – ideally, at least twice within the same academic year.
- **Keep software updated**
  Ensure that the devices you and your pupils use run on up-to-date operating systems with all the latest security patches and updates installed.
- **Guard personal information**
  Educate pupils about the dangers of sharing any personally identifiable information online. Teach them to avoid using mentions of real names or birthdates in their online usernames, and to think carefully before volunteering their personal details to an online service.
- **Pause before clicking:**
  Teach pupils to proceed with caution during online interactions. Clicking on dubious links, QR codes or pop-up ads can easily invite malware into your system. Establish 'Pause and Think' as a regular classroom practice to remind pupils of this habit's importance.

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Q&A

See the data exams won't tell you

A timely initiative aimed at helping schools measure important aspects of students' personal development

30 SECOND BRIEFING

Schools are about much more than exams, but getting reliable data to measure their wider impact is difficult. The NCES provides schools with bespoke reports analysing student outcomes against a range of factors, including toleration and active citizenship, helping staff to evaluate their provision.

What is the NCES?

The National Citizenship Education Study (NCES) was established by the Association for Citizenship Teaching (ACT) and Middlesex University as a national research study on the impact of citizenship education in schools. Based on a comprehensive review of over 130 research articles, we have devised a survey designed to track a range of measures – including inputs relating to citizenship teaching methods and school ethos, as well as personal development outcomes, such as toleration, knowledge about (and attitudes towards) democracy, intentions to participate in different forms of active citizenship and feelings of personal efficacy.

How will it benefit my school/ provision?

Schools can undertake the survey with one or more whole year groups, enabling the research team to analyse your data for differences between students, focusing on gender, ethnicity, religion and socio-economic factors. We'll then provide your school with a confidential report, enabling you to identify how your school is doing overall, and whether there might be any significant gaps between students. Some teachers have already been using this information to evaluate the quality of their provision and undertake appropriate development planning.

Contact:
teachingcitizenship.org.uk/national-citizenship-education-study
ACTresearch@teachingcitizenship.org.uk

What do the project's initial results indicate?

The data from all participating schools is added (via an entirely anonymised format) to a central database, which helps us look for evidence of what works. Our first year results indicate that a school's ethos is one of the biggest predictors of positive outcomes, though the range of teaching and learning approaches used is also an important factor. Our research team regularly publishes briefings and case studies to help teachers plan for improvement.

What are the next stages of the project?

The survey has been extensively piloted and trialled, and is now available to any secondary school interested in participating. We can sign up individual schools or clusters/MATs and generate school-level and cluster-level reports. Across MATS, these reports will help colleagues identify strengths and weaknesses between schools, while also helping staff to identify good practice to share with colleagues.

ABOUT LEE:
Dr Lee Jerome is Professor in Education (Citizenship and Children's Rights) at Middlesex University

How do I get involved?

Contact the research team and ask about the 'NCES Student Evaluation', following which we'll send you an overview and an ethics pack. Once your headteacher has agreed to the ethics procedures, we'll provide a PowerPoint presentation for introducing the survey, as well as a link enabling students to complete the survey online during the summer term. You'll then receive your school's report by the start of next September. There's also an online survey for teachers that will provide instant feedback on your school's provision.

What's the difference?

+ The survey enables schools to engage in data-led evaluation and development planning
+ Our reports provide insights into different groups of students to help with equalities monitoring
+ Your school results also feed into a larger study looking for evidence about what works

All are WELCOME

We hear how one school came to discover that handball is the team game every pupil can play...

Hertfordshire and Essex High School identified a need to need to rethink its physical education provision, so that all pupils could feel included, and make the very most of the limited time available for the subject within a typical school day.

Given the significant number of PE hours recently lost from the curriculum – against a backdrop of PE and sport in English secondary schools falling alarmingly over the last decade – every minute counts when it comes to integrating sport and physical activity within the learning experience.

As part of wider efforts at prioritising positive experiences and ensuring all students could participate in sport, the school turned to newer, exciting sports with inclusivity at their heart – and soon found handball to be the perfect fit for the curriculum goals they had in mind.

Outside the norm

According to Ms Fenner, a PE Teacher at Hertfordshire and Essex High School, "*It has been great to see the growth of new and more diverse sports here, compared to other schools I have been at. Handball is so accessible – it's really easy to set up, and everyone and anyone can go out there and play it.*

"*That's the reason it works so well for our pupils; we're always focused on giving them an experience that they will enjoy, where they can develop more fully, and that means thinking outside of the established norm. No child should only have the option to just play football or netball.*"

Following a positive integration period, handball is now on the school's curriculum. As Ms Fenner explains, "*We are reactive to what the pupils like and enjoy, so now we have seen a really high uptake of students who are interested in handball and want to do it. That has to be at the heart of the approach from any school – listening to your pupils, and seeing the learning process as collaborative.*"

The next level

As a result, some of the school's KS4 students have been able to take their

"It was such a positive experience for our students – seeing them take part in handball over the year, you could see the changes it has made for them"

interest in the sport to the next level by taking part in an England Handball competition and making it as far as the Nationals.

"When considering the curriculum you should be offering your pupils, you must consider what will give your pupils broader opportunities outside of school," notes Ms Fenner. *"This is a great example of that. If we can give our young people the confidence and experience to take on new challenges when they leave the school gates, we're doing the right things."*

As a girls school, Hertfordshire and Essex High School is especially aware of the barriers to participation in sport and physical activity that girls are presented with across wider society. Recent research from the Youth Sport Trust has shown that the top suggestion from a nationwide survey of girls as to how their engagement could be improved was for them to be given more sport options to choose from – hence the rise in participation rates of sports like handball.

Nearly two thirds of girls (64%) want to be more active in their schools, but find themselves faced with various barriers that prevent them taking part – notably a lack of confidence, and concerns around being watched by others.

Rising confidence

The aforementioned England Handball Schools competition was particularly beneficial where this was concerned. As Ms Fenner recalls, *"It was such a positive experience for the growth of our students. Seeing them take part in handball over the year, you could see the changes it has made for them in such a small amount of time."*

Annica Farley is a development coach with England Handball who has worked closely with the school. In her view, *"Handball is an inclusive sport. Children come in, and they just want to try a new sport out, make some new friends. Through learning how to catch, jump, throw and shoot together, teammates help each other out. Their confidence really rises once they understand that handball is something they're able to do."*

What's happening at Hertfordshire and Essex High School is part of a broader drive aimed at integrating similar handball opportunities other schools. *"It is a GCSE team sport, and there are pathways within England Handball and British Handball for children to go as far as they wish to,"* Annica says, *"but crucially, at a school level, if they just want to have a recreational sport and have a positive learning experience, then there's nothing better."*

For teachers or schools who may be unsure of how to adapt their curriculum, or introduce an entirely new sport within their offering, there's support available to assist from governing bodies. According to Annica, *"England Handball runs courses for teachers, including an Introduction to Teaching Handball, which will give you the basic knowledge needed to deliver lessons. There are also development coaches who can go into schools and help teachers.*

"The fact that it's so easy to deliver means that any school can do it, and therefore give every child access to a sport that could transform their life. All they need is a couple of goals, some balls and play it either indoors or outdoors – or both. It's really accessible."

FURTHER INFORMATION
To find out more, visit **englandhandball.com** or follow **@englandhandball**

TOP TIPS

- **RAISE THE VISIBILITY OF DIFFERENT SPORTS**
  Make sure your pupils get to learn about the various sporting opportunities available to them. Lunchtime taster sessions are a good way of encouraging students to try different sports and see if they enjoy them
- **MAXIMISE PLAYING TIME**
  Clear and efficient communication can help get games started quickly, but don't spend all your time explaining rules and strategies and talking at your pupils. Instead, get them playing quickly, and then let them work out their own mistakes and take away their own learnings.
- **ENCOURAGE PRACTICE OUTSIDE OF SCHOOL**
  If students can accelerate their learning and abilities at handball or any other sports by getting involved with a local club, they're more likely to stay active for longer. This may even allow your older pupils to lead and coach in-school sessions themselves – something that England Handball is well-placed to facilitate.
- **BORROW FROM OTHER SPORTS**
  Whichever sport you're doing, be sure to transfer over drills and exercises from other sports and activities, where appropriate. Handball relies on many transferable skills honed through drills from other sports; by adopting some of these, you'll be able to develop your players' skills more effectively.
- **GIVE STUDENTS TIME ON THE BALL**
  Make sure participants are given plenty of time with handling the ball. You can use mini games to practice passing and moving forwards under pressure, before later focusing on more technical elements.
- **TEACH COMMUNICATION SKILLS**
  A fundamental part of the game involves performing well as part of a team. Ensure that your pupils are aware of this, and consistently stress the importance of working together effectively.

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LEARNING LAB

IN THIS ISSUE

+ How the sciences and the arts can be perfect partners
+ The importance of regularly revisiting your classroom rules
+ Why your students should get to know more about the logistics sector
+ Ross Morrison McGill shares his thoughts on why we ought to rethink teacher feedback
+ Are schools doing enough to connect students with the natural world?
+ The English education system's segregation problem
+ 5 more ways of reframing classroom behaviour

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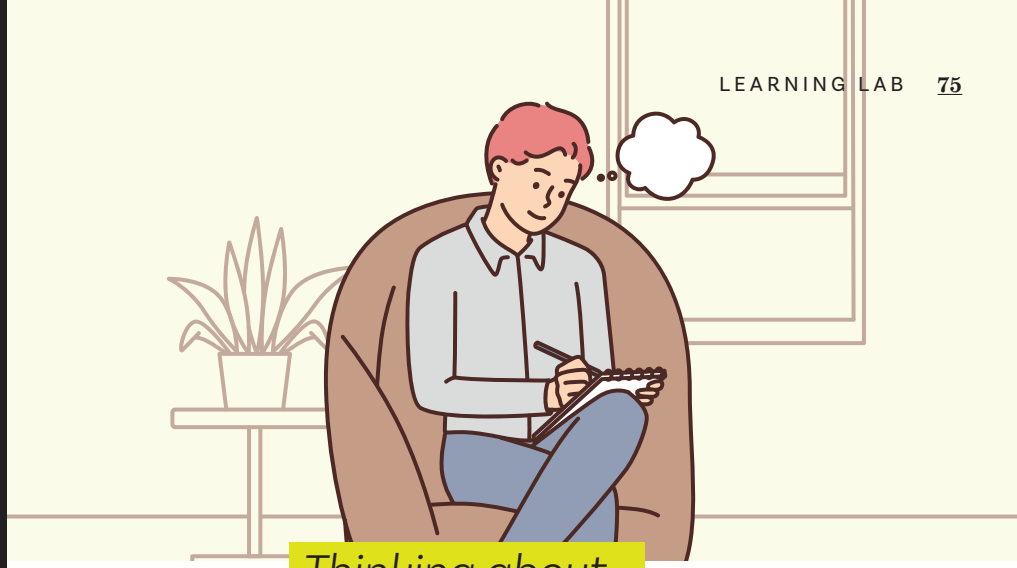


Thinking about...

TEACHER PLANNERS

Some common misconceptions around lesson planning include the following:

- You're aiming for a convenient, one-size-fits-all approach
- It will inevitably involve copying resources from the internet
- It should be structured as a lesson 'to do' list consisting of multiple tasks

In actual fact, it *should* involve:

- Actively adapting lessons to suit the needs and abilities of different students
- Managing time effectively
- Keeping as well-organised as possible to reduce instances of stress
- Ensuring your classroom management remains smooth and positive
- Reflecting on and improving your teaching so that you can achieve better outcomes in future

I remember that when I first started teaching, I thought the lesson planning would be simple. We now have access to all these helpful online resources – some through the school, many we find for ourselves – making it easier than ever to get everything prepared and ready to go. But then, reality hits. The tech fails, and you suddenly find yourself standing in front of 30 students on a hot summer's day, attempting to fix IT issues while at the same time desperately trying to keep everyone's attention from wandering…

That's what taught me the value of having alternative options to call on, and why my trusty teacher planner has become a great friend. The technology might let you down, but your planner won't.

It's more than just a backup – it's my go-to guide. Having everything noted, written down and immediately to hand makes it much easier stay on track. I'll use my planner just before class to review my upcoming lesson plan, making sure I'm absolutely clear on what I want to cover.

After the lesson, I'll then jot down notes of what worked, what didn't and any changes I'll need to make for next time. This keeps me organised, saves me time, and above all, helps me stay calm.

If you're a new teacher, or even a seasoned veteran of many years, I can't stress enough how much a planner can help you. Using one doesn't just see to it that you're more prepared; it also enables you to better adapt, stay focused and manage your stress levels, so that you can focus on teaching your students and helping them succeed.

Planning isn't just about getting through the day more effectively or efficiently; it's also about devising roadmaps to success for you and your students. A well-kept teacher planner will help you manage your time, handle unexpected challenges and reflect upon your teaching every step of the way. So why not get yourself a planner today, and take control of your classroom, your time and your teaching outcomes? You'll thank yourself later...

ABOUT THE AUTHOR
Gloria Dalafu is a lead practitioner in maths, overseeing teaching and learning

WHY SEPARATE SCIENCE FROM THE ARTS?

When choosing my GCSEs in the 1980s, I didn't have a clue. I was a quiet child, spending my time alone writing stories and computer programmes on my BBC Micro, not knowing how to translate those personal interests into my school subjects.

Coming from quite a religious family, I initially considered taking religious studies before my head of year intervened and proposed a compromise. He'd teach me RS outside of school, on the condition that I take physics. I didn't understand why he was so adamant. To me, physics was just another subject to half understand, another noisy classroom in which to try and disappear – but his nudging changed something. I fell in love with science and never looked back.

Mr Thomas of Exhall School, Bedworth set me on a path that eventually led me to work on the Large Hadron Collider at CERN, teach physics in Sudan, join several (fun, but unsuccessful) tech startups and ultimately end up as an AI researcher at Google DeepMind. I owe him a great debt, but he still only got to see one side of me. It took 35 years of gentle disappointment and quiet failure before finally reconnecting with my other great love of writing stories.

I now get to combine the two, writing novels during part of the week and coding software during the rest. The two activities are intertwined in my brain, each supporting the other, and I know now I couldn't live without either one of them. Both are ways of trying to make sense of a chaotic world; two means of re-ordering the ideas in my head into forms that others can experience.

Yet I can't help feeling that I was forced into making an early binary choice between a 'scientific' or 'humanities' path, which kept me from seeing the fundamental links between both for a very long time. I think about this when I'm on school visits, and will ask Y7 to Y9 students if they consider themselves 'science-y' or 'arts-y' people. Most have a strong preference for one or the other. Very few tell me they like both.

Even if unintentionally, we lead students to think they *have* to choose a specific path, which I feel is a mistake. Rather than treating them separately, let's elevate and teach the connections between the two, and encourage students to see their classes more as a continuum of specialisations, rather than a series of discrete subjects.

Years of physics training taught me two important lessons. First, that science is a way of thinking, rather than a subject. The hopeful scepticism of the scientific method could be taught across, and in parallel with other subjects, and would enrich students' ways of thinking about all of them.

Second, that science is a creative act. Scientific ideas begin with careful observation and measurement of the physical world; drawing those measurements together into a coherent narrative that we can imagine and reason about is an act of storytelling.

I enjoy an uncommon combination of art and science in my working life, and the books I write reflect this. My stories start with the kinds of dilemmas that young people often face, in settings laced with the technical detail that I love and which make the world feel real to me. More importantly, my characters confront the challenges I present them with like scientists – seeking to understand and explain using the tools at hand, by way of trying to reclaim a little control from the chaos.

It's a way of thinking that might be useful to any student, regardless of what they're studying at GCSE, A-Level or beyond, and could help them face down whatever the next 30 years has in store for them.

ADAM CONNORS IS A UK-BASED ENGINEERING MANAGER FOR GOOGLE AND A YA FICTION AUTHOR; HIS LATEST BOOK, *FIND ME AFTER*, IS AVAILABLE NOW (£8.99, SCHOLASTIC)

DO THIS

REVISIT YOUR RULES

Exercise better class control with these tips from Robin Launder...

It doesn't matter if student behaviour is currently good – you must still revisit your rules frequently. In fact, this might even be the best time to do so.

Why? Because your students will be receptive rather than defensive; the experience will be positive rather than negative, and because being proactive is better than being reactive. How you revisit your rules is up to you – just make sure you do, often, and in different ways (repetition and variation being key to embedding material into long term memory).

One simple, yet powerful way of revisiting your rules is to draw attention to them when they're being followed. For example: "*Three, two, one, pens down. Thank you. And thank you for following rule two, 'We follow instructions right away'.*"

See also: "*I liked the way that you said 'please' and 'thank you'. Politeness fits squarely with rule four, 'We respect each other'. Good.*"

Robin Launder is a behaviour management consultant and speaker; find more tips in his weekly Better Behaviour online course – for more details, visit behaviourbuddy.co.uk

43%

of UK adults believe they were not taught 'soft skills' needed for later life during childhood

Source: 3Gem research commissioned by the education business Inspiring Learning

Could unburdening graduates from the financial pressures of their student loans help to address the teacher retention crisis? An analysis by the National Foundation for Educational Research suggests that may be the case.

Researchers set out to examine the potential effectiveness of a 'teacher student loan reimbursement' (TSLR) scheme, under which the government would pay back money paid by teachers in the previous financial year for their student loan repayments.

The DfE previously conducted a TSLR pilot scheme back 2018, albeit one specifically aimed at state school teachers in certain shortage subjects within the first 10 years of their education careers. Using the estimates produced by this pilot scheme, NFER researchers modelled the likely impact of introducing a new TSLR scheme for which all teachers within their first 10 years of teaching would be eligible.

The latest estimates indicate that if such a scheme were enacted, it would help to retain around 2,100 teachers who would have otherwise been expected to depart the profession. The attendant costs of the scheme were calculated to be around £245 million – close to the current total spend on training bursaries.

Sarah Tang of NFER's Centre for Policy and Practice Research says, "*Especially for shortage subjects where bursaries are already high, a TSLR scheme could be considered as part of a broad teacher recruitment and retention strategy.*"

For more information and to read the findings in full, visit tinyurl.com/ts137-LL3

WHY WE CREATED...

THE GENERATION LOGISTICS EDUCATION HUB

According to a recent Generation Logistics survey carried out among 1,500 respondents, 55% of young people don't know what career path to take when leaving school.

It's little wonder that the majority of young people seem unsure of which direction to take, given how the world beyond education can seem scary and overwhelming. The industry-backed Generation Logistics campaign is here to change this, however – and it starts in the classroom.

Generation Logistics seeks to highlight the career opportunities available to young people within the logistics sector – a profession that over 90% of the UK has never previously considered as a viable career path, based on the same aforementioned research.

This is largely due to a lack of awareness with regards to what the profession can offer. Spanning engineering to digital technology, human resources, customer services and everything in between, logistics offers something for every skill set and preference.

Featuring content designed for 13- to 18-year-olds – including free resources, activities and lesson plans – The Generation Logistics Education Hub (educationhub.generationlogistics.org) is designed to help teachers bring these different career opportunities to the forefront of young people's minds at an earlier stage of their education, helping to make them feel more prepared for the working world.

THE CAREERS BOOKLET

As well as teaching resources, teachers can also download from the Education Hub the campaign's Careers Booklet. This provides a detailed outline of exactly what the modern logistics sector looks like, as well as information regarding job salaries and the varied career prospects available within the sector to young people today.

It also breaks down the key areas of logistics, and includes case studies from logisticians (both junior and senior) currently working in each and every area.

THE AMBASSADOR NETWORK

But don't just take our word for it. You can request a visit from a Generation Logistics Ambassador to your school or college, where they'll deliver a talk on their experiences of working within the logistics sector – and why your students should consider that pathway for themselves.

To request ambassador engagement for your school or college, complete the online form accessible via the Education Hub website.

BETHANY WINDSOR IS HEAD OF GENERATION LOGISTICS AND SKILLS POLICY FOR LOGISTICS UK; FOR MORE INFORMATION, VISIT GENERATIONLOGISTICS.ORG

74%

of secondary school teachers report having had to make alternative arrangements for this year's GCSE assessments, due to students' exam anxiety

Source: Teacher Tapp survey commissioned by the Association of School and College Leaders

Need to know

New analysis by The Sutton Trust has revealed the extent to which schools in England have become socially segregated. Researchers examined how closely the socioeconomic profile of schools' intakes reflected the demographics of their catchment areas, thus enabling educators and families to compare their school to others locally, via an interactive map.

The North East emerged as the region with the country's highest levels of socioeconomic segregation, with the most uneven spread of pupils receiving free school meals. The North West came in second – contrasting sharply with London, the West Midlands and the South West, which were found to show, on average, the lowest levels of segregation.

Highly segregated areas were more likely to be found in urban locations, alongside lower levels of ethnic diversity and a comparatively high number of faith schools. Those LAs overseeing schools with high segregation levels also saw larger GCSE attainment gaps between their most and least disadvantaged pupils.

In light of the findings, the Sutton Trust has called for Pupil Premium eligibility to be included within schools' over-subscription criteria, and for Ofsted inspections to include assessments of fair access.

For more information and to view the Sutton Trust's interactive map, visit **tiny.cc/ts137-LL2**

FOCUS ON...

IMPROVING FEEDBACK

Ross Morrison McGill tells us about some of the thinking and reflections that went into his latest book, The Teacher Toolkit Guide to Feedback...

What were your main objectives when putting the book together?
I wanted to tackle the notion that marking is the only way of providing feedback. Several years ago I published some research with University College London – a case study of 13 teachers in seven disadvantaged state schools – where we documented the difference on outcomes when teachers spoke to students and used verbal feedback techniques instead.

It was a further step on a long journey I've taken, through the experiences of marking scrutiny book looks during inspections or at the behest of school leadership, and observing the processes involved in coming up with templates and methods for determining marking reliability and consistency across a school.

For the past eight or so years I've been delivering teacher training in schools, and while I've seen the dialogue around feedback improve, teachers are still being penalised by the imposition of specific marking methods. They're methods designed for consistency, and to obviously try and help students progress – but ones often detrimental to teacher wellbeing. Put simply, I and other teachers have spent too many Sunday nights marking books at the kitchen table, rather than spending time with our families. I want to move the dialogue around marking and feedback forward.

Who are you mainly addressing that message to? Teachers, school leaders?
I've tried to write a practical book for teachers, but there is an undercurrent in there of '*This is an important message for school leaders.*' I hope inspectors read the book too.

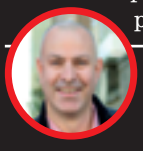
School leaders have the greatest impact when it comes to whole school change, so my hope would be that a school leader picks up the book and begins a similar journey themselves – by developing a range of different marking and feedback techniques, and building an evidence base so that they can challenge anyone who still maintains that determining a child's progress always requires first looking through a book.

What reliable ways are there of recording and evidencing verbal feedback?
If you have teachers who are highly effective and engaging, and have developed scripts to help students act on what they've produced in class through brilliant verbal feedback techniques, that can be evidenced. Let's say that historically, a school has scored relatively poorly in attendance and punctuality. Behind the scenes, there's lots of training in how to give effective verbal feedback. Suddenly, the kids are regularly turning up to school, and are quick to class because they can't wait to be with their teacher. That's an outcome in its own right, as well as evidence of the impact that approach to feedback has had.

Schools need the confidence to declare that outcomes don't just revolve around exam scores, and that there are other sources of evidence. This happens already – if your school has a 76% attendance rate, Ofsted will see that as a big problem that needs fixing.

Are there any changes you'd like to see in how ECTs are taught about and initially familiarised with feedback techniques?
Half the challenge with managing ECTs is that 15% of them leave after the first year. As a new teacher, especially if you're young, you're dealing with working in a brand new, full-time job for the first time, living on your own and therefore already needing to learn a variety of self-regulation habits.

Ensuring that ECTs learn important professional skills, as well as good classroom habits, is quite a big task as it is – though many schools are now doing a bit more around providing new teachers with a range of marking techniques and tool, including verbal feedback scripts.



ROSS MORRISON MCGILL HAS WORKED AS A D&T TEACHER, MIDDLE LEADER AND DEPUTY HEADTEACHER, AND IS FOUNDER OF THE @TEACHERTOOLKIT DIGITAL MEDIA PLATFORM; THE TEACHER TOOLKIT GUIDE TO FEEDBACK IS AVAILABLE NOW (£12.99, BLOOMSBURY)

On the radar

Not enough nature?

A new report from WWF-UK and The Education Company has sought to gauge how frequently schools are offering pupils opportunities to explore the natural environment.

According to the 'Schools for Nature' report, 27% of all schools integrate aspects of outdoor learning into their curriculum – though the numbers seem less encouraging where KS3/4 is concerned, with 56% of secondary schools found to offer their pupils no outdoor learning opportunities at all.

The report also draws attention to some marked social disparities. At state schools with a relatively low proportion of students receiving free schools meals, 52% of students were given daily opportunities to experience nature – a figure that falls to just 18% among state schools with high proportions of students receiving free school meals.

Across those schools with some form of outdoor education provision, involving pupils in the growing of food was identified as the most common nature-related activity, practised by an impressive three quarters of all primary respondents. While also the most popular such activity at KS3/4, only 40% of secondary schools could say the same.

The factors most commonly cited by respondents as barriers to providing more outdoor education included tarmacked and astroturfed school grounds, excessive teacher workload, lack of curriculum time, staff confidence levels and lack of available funding.

The full 'Schools for Nature' report can be downloaded via tiny.cc/ts137-LL1

TRENDING

Our pick of the recent resources and launches teachers might find useful...

POSITIVE STARTS

Secondary schools are being invited to sign up for a free personal development assessment aimed at supporting primary to secondary pupil transitions. Organised by Lessons4Life, the assessment consists of two 25-minute test sessions for Y7 students, the anonymised data of which will then be used to assist efforts at providing primary schools with improved staff training and assessments to better support Y6 pupils' moves into secondary schools. lessons4life.org

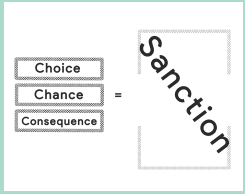
HERE'S ONE IT MADE EARLIER

Oak National Academy has launched an AI-assisted lesson planning tool. Going by the name of 'Aila', it promises to aid teachers in creating personalised lesson plans with accompanying resources in a matter of minutes, entirely free of charge. labs.thenational.academy

TEACHER WALKTHROUGH

REFRAMING BEHAVIOUR – PART 6

PART 6 OF AN ILLUSTRATED EXPLAINER, BASED ON A BLOGPOST BY @TEACHLEADAALI



1

GIVE WARNING

A school's discipline policy is meant to support staff and students. If you must issue a sanction, ensure students are given opportunities to change, and receive plenty of warning before you do so.

2

CELEBRATE ACHIEVEMENTS

Consistent praise is a great tool for creating a climate of positive change in the classroom. Celebrate students' achievements by letting them know when they've done well.

3

MEET AND GREET

Meet and greet all students as they enter the classroom, if possible. Just a simple '*How are you?*' can build a positive narrative and provide insight into students' demeanour ahead of the lesson.

4

BE GENEROUS

Be more generous with your praise than your sanctions if you can. Prove a point – that you are here to recognise their achievements and encourage their learning.

5

FOLLOW-UP CONVERSATIONS

Following up sanctions by engaging the student in conversation can help to drive home the impact their behaviour had. Raising any concerns with parents will often help to resolve issues quicker than you'd expect.

ZEPH BENNETT IS A PE TEACHER AND SCHOOL ACHIEVEMENT LEADER WITH 25 YEARS' TEACHING EXPERIENCE; YOU CAN FIND MORE OF HIS EDUCATIONAL ILLUSTRATIONS BY FOLLOWING @ZEPHBENNETT.BSKY.SOCIAL

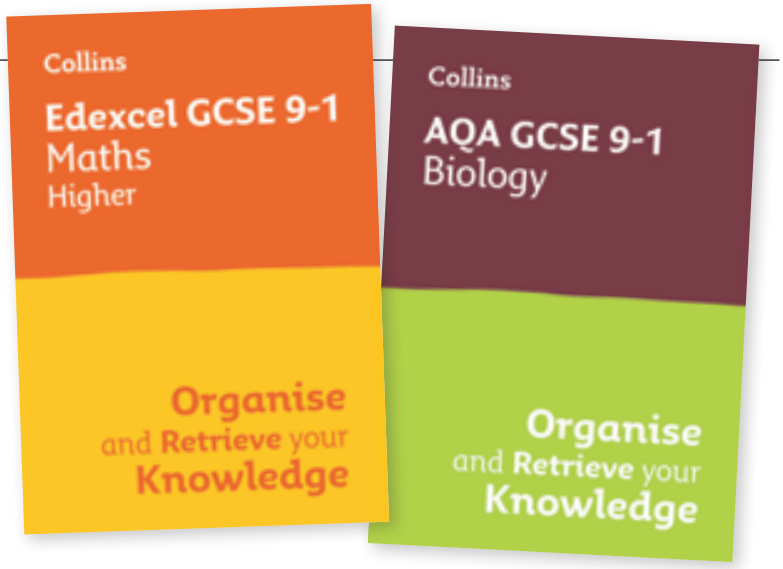
Got a great learning idea? Email editor@teachsecondary.com or tweet us at @teachsecondary

MATHS | SCIENCE

Collins

Collins GCSE Organise and Retrieve your Knowledge

Compact and cleverly presented revision workbooks for GCSE maths and science



AT A GLANCE

- **Focused revision of key concepts**
- **Designed for the systematic embedding of learnt knowledge**
- **Complete curriculum coverage**
- **Available for maths, physics, chemistry, biology and combined science learners**
- **Separate editions for AQA science and AQA and Edexcel maths**

REVIEW BY MIKE DAVIES

When I think back to my secondary school days, especially the lead-up to exams, I shudder. Whatever I was doing in those last few weeks, you couldn't call it 'revision' by any standard definition. I was highly unfocused, and my notes were a joke.

Back then, it was O Levels, but the principle remains the same with GCSEs; you get taught, you revise, you sit exams. Trouble is, you're fed with more information than a distracted teenage brain can handle. Which is why the quality of students' revision has such impact on their success.

That's where the Organise and Retrieve your Knowledge workbooks from Collins come in. I've seen a fair few revision guides in my time, and many that were very good – but there's something about these workbooks that immediately made me feel '*Yes, I can do this!*' I'm not sure I've felt that reaction quite so strongly before.

With the learning content having to be consistent, the main differences with these revision guides come down to their presentation and organisation. And these ones just feel extremely helpful and sensibly laid out.

Firstly, there's the size. Their A5 format somehow makes them feel less intimidating, as well as easily pocketable, making it possible to do a page or two while on the bus or train and feeling like you've achieved something worthwhile in your downtime.

Best of all, though, is the layout. Each curriculum topic is given its own two-page spread. On the left is an 'Organise' section, presenting the clearest, most concise set of notes you could ever imagine trying to copy from more diligent classmates, with crucial key points clearly indicated. Higher tier content is appropriately marked out, and the workbooks' diagrams and illustrations, where needed, are both visually appealing and useful. There are also some worked examples when the content calls for them.

On the right-hand side you'll find a 'Retrieve' section. This is designed to test students' understanding and powers of recall via questions concerning the information covered on the opposite page. These are set out in ways that pupils might expect to see in exams, adding to the sense that these books will prepare students appropriately (with model answers found at the back).

The Organise and Retrieve your Knowledge series therefore succeeds in its aims. While no substitute for a good, inspiring teacher – there's little room for extended explanations – they are an excellent tool for those students who have been paying attention in class. If you want to boost students' recall when it matters most, you've come to the right place.

teach SECONDARY

VERDICT

✓ The compact format makes them practical for everyday use
✓ All content is cleverly organised and structured
✓ The text contained within the workbooks is consistently concise and to the point
✓ Illustrations are suitably clear and deployed well
✓ The workbooks represent great value for money

UPGRADE IF...

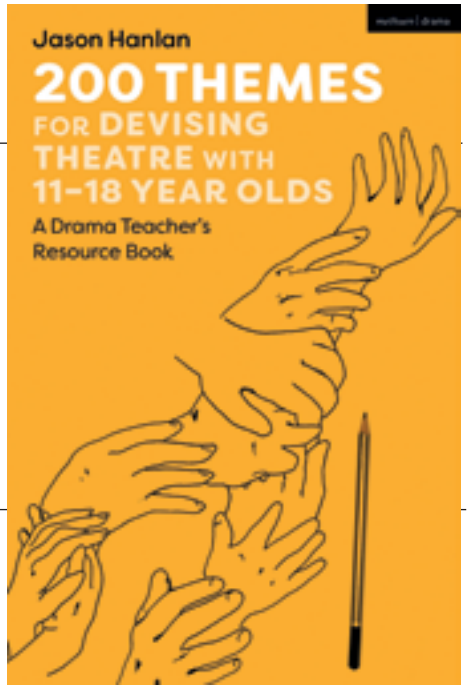
... you want an efficient and convenient revision support and practice tool for your maths and science students.

From £3.50 per book for schools; find out more at collins.co.uk/revision

DRAMA

200 Themes for Devising Theatre with 11–18 Year Olds

Your drama class has studied some great plays – perhaps now it's time for them to create their own?



AT A GLANCE

- **A toolkit for drama teachers that outlines how to devise original theatre**
- **Contains 200 age-appropriate topic suggestions**
- **Lesson ideas for introducing students to the creative process**
- **Covers strategies for encouraging creativity and organising ideas**
- **Guidance on how to analyse work and provide feedback**

REVIEWED BY: JOHN DABELL

Written by a highly experienced drama practitioner, performance examiner and teacher trainer, this resource book for drama teachers explores how to devise a dramatic work without a pre-existing script.

Being able to make something out of seemingly nothing at all is quite the skill – especially when the aim is to create an original piece of performance theatre that conveys meaning, has a cast of characters and a plot, and is concerned with specific themes and issues.

For author Jason Hanlan, assembling and fashioning drama as a class is akin to working with Lego, with ideas standing in for bricks. Each idea fits around all the others, adding shape and structure, but not always successfully. Through a process of experimentation, this assemblage of ideas may or may not click into place at first – but gradually, you'll find yourself constructing something unique, colourful, sometimes unexpected and perhaps even remarkable that bears the fingerprints of every student.

This is a first-rate resource that offers great insights, and which explores the subject in considerable depth, while still being highly accessible and hugely inspiring. In the opening portion of the book, Hanlan outlines his thoughts on why devising original drama is an important and worthwhile task, before moving on to why a good knowledge of your students is important when choosing the topics and themes for your original piece.

Hanlan asserts that students are indeed capable of devising deep, meaningful performances that are rich with language, metaphor and complexity – but that they will require a strong framework and a teacher aware of how the trapeze works. This is the cue for an especially good section focusing on techniques that will prevent your lessons from degenerating into a creative free-for-all.

The bulk of the book is made up of 200 'mini guides' to carefully selected topics, spanning subject matter that ranges from child soldiers, online dating and reincarnation, to human trafficking, eating disorders and PTSD, with plenty in between.

Each topic guide begins with a thought-provoking quote, before setting out the suggested age and group size, ideas for games and workshop activities, and a series of potential talking points. The guides then conclude with stimulus ideas that can include suggestions for other plays, films and books to draw inspiration from, as well as artefacts and images that might spark students' creativity.

If you still need persuading, there's a chapter dedicated to eight case studies of classes that have successfully created works from the topics presented, in which Hanlan shares his personal insights and experiences of the creative processes he saw his students going through.

Devising theatre as a class can feel exhilarating or terrifying. If the idea makes you feel more of the latter, then consider this book your safety net and enjoy the art of letting go.

teach SECONDARY

VERDICT

✓ A focused, teacher-friendly tool packed with exciting and engaging stimuli
✓ Sets out a powerful framework for bringing ideas together in the service of creating original theatre
✓ The suggested activities will help to foster students' inventiveness and collaboration skills
✓ Provides drama teachers with helpful advice on how to analyse and evaluate the creative process

UPGRADE IF...

...you're looking for a playful, optimistic and dynamic resource to help unlock the imagination and creativity of your drama students.

Priced at £16.99; for more information, visit bloomsbury.com/9781350279636

ABOUT THE AUTHOR
John Lawson is a former secondary teacher, now serving as a foundation governor while running a tutoring service, and author of the book **The Successful (Less Stressful) Student** (Outskirts Press, £11.95); find out more at **prep4successnow.wordpress.com** or follow **@johninpompano**

THE LAST WORD

Mark my words

John Lawson takes the opportunity to get a few lexical pet peeves off his chest...

In December 2023, 'rizz' was chosen by 32,000 voters as Oxford University Press' 'Word of the Year'. Derived from 'charisma', said word refers to one's ability to project style, charm, or attractiveness. And while it sounds...fine, I haven't once heard it spoken out loud more than half a year later. Have you?

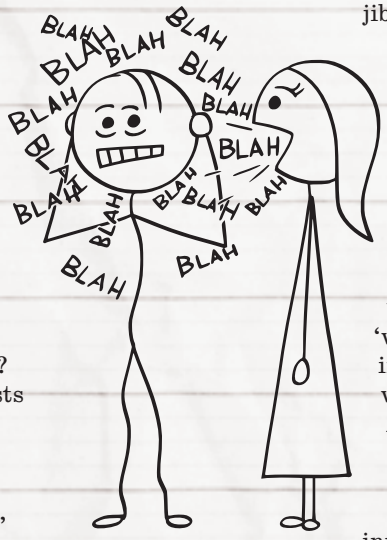
Beyond the merits and real-world usage of rizz, this got me thinking about overused words, and those phrases I'd most like to scrap.

Initially opaque

I managed to decipher the initially opaque term **double down** eventually, but it still irks me – because, like alcohol and smoking, it's difficult to fathom its genesis. Who first uttered the words, '*X is doubling down on Y*'? How did it ever survive its earliest usage? If someone finds three or four further reasons for reinforcing their original opinion about something, why aren't they then 'tripling' or 'quadrupling' down – or even up?

Voguish portmanteau words like 'snaccident', 'jeggings', 'sheeple' and 'frenemy' make me smile; 'doubling down' only makes me frown. Am I doubling down if I again request collegial support in my forlorn quest to stem the ubiquity of doubled adjectives and adverbs?

Sadly, novelists and broadsheet journalists seem to have embraced this irksome tic. There will be no white flags above my desk until someone can explain how something very, very good isn't 'brilliant', 'excellent', 'superb' or 'terrific'.



Riddled with holes

Why is it that we then so often get the exact opposite whenever someone promises a **robust response** to anything? Today's social leaders inject this term with a kind of rallying power, especially when the response in question is first being **rolled out** (*ugghhh...*) Yet 'robust policies' are usually riddled with holes. Are builders still *robustly* addressing RAAC problems in your school? Indiscipline still harms many schools, despite the *robust* policies that the DfE assures us are in place.

Ministers demanded *robust responses* to the Post Office debacle, while the P.O. apparatchiks involved merely informed Alan Bates that he was the only one who considered their compensation offer derisory.

The first person to formulate the expression '*in any way, shape or form*' was showcasing a sharp, agile and analytical mind. Sadly, it has since become a catch-all, monolithic term that teenagers from 10C will wantonly throw into essays and utterances inanywayshapeorform that suits them!

The bile pile

When talking to teaching newbies, it appears that I can no longer discuss the long hours and hard work that might one day lead to teaching excellence without someone suggesting that I'm 'virtue signalling'. Or that I'm somehow 'woke'.

'*Sticks and stones may break my bones, but names will never hurt me.*' I disagree. When did we become 'woke snowflakes' for flagging up the suffering caused by belittling and intimidation? Bullies aim malicious jibes at the vulnerable spots we all have, and should be challenged on it. Doing so makes us humane citizens – not some 'tofu-eating Wokerati'.

Some words are devised solely to hurt, and right now, 'woke' tops the bile pile. Right-wing politicos in America and elsewhere are desperately trying to re-throne Donald Trump by weaponising the word 'woke' as a stick with which to beat their enemies. Is it 'woke' to feel compassion for thousands of innocent and vulnerable victims of war, whether in Gaza, Ukraine or Sudan? And if so – *why is that bad*?

Village bobbies who embrace, say, the idea of Morris Dancing tend to be seen as responsible, inclusive and sensitive, while inner-city cops who dance alongside people of colour, goths and gay people at a carnival are considered 'woke'. Could it be that woke folk are just typically wise, open-minded, knowledgeable and empathetic people who seek to destroy hatred with love?

Awesome, man!

And then there are words that don't cause harm, so much as irritation. I remember writing a pithy poem a couple of weeks after I started teaching in America in 2000:

Is it a bird? Is it a plane?
Whatever it is, if an American teenager spots it
It will be kindalike awesome, man!

American teens still seem addicted to that excruciating expression to this day – despite their teachers' best efforts at outlawing its use...

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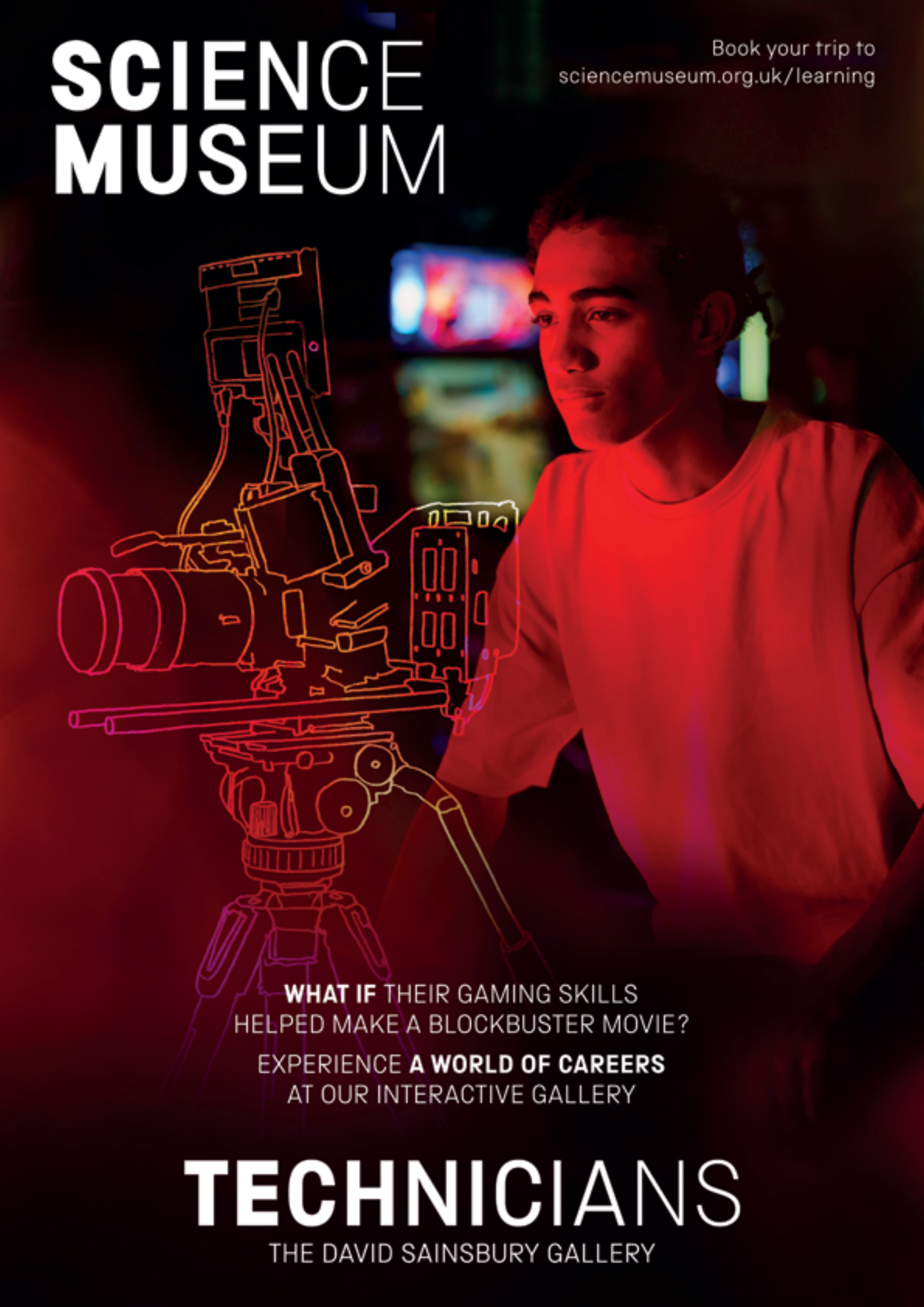

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