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## Hello!



appy New Year! How are you?
I'm writing this at the very end of 2021, and boy has it been a tricky one. I know a lot of you have been struggling with extra stress, all the ongoing implications of Covid, and even some burnout. But, I hope you've had a relaxing break, and feel ready to boss 2022.

As always, we've got a host of expert teaching ideas, opinions and lesson plans for you, which I hope you'll find useful. Let's dive right in. Our subject focus this month is STEM, and on p44 Laura Cross has a selection of engineering ideas for every class; on p48 Sway Grantham discusses how to introduce your KS1 pupils to computing (and why not immediately being able to answer their questions means you're getting it right!), and on p53 Dr Jo Montgomery has 20 activities for winter-inspired science.

Ofsted's recent review of primary geography has revealed some gaps in mapping skills, so we've got a great feature on p36 from Steve Brace, explaining how maps of familiar places can be the best way to teach the essentials. On p30, Stuart Tiffany provides an alternative to the classic Great Fire of London history unit, with six weeks of lessons on the first flight. And, if you're interested in discovering new ways to approach behaviour and inclusion, Jill Wright and Marie Beale explain how extended playtime has driven positive change at their school.

Last but certainly not least... it's January, which can only mean Bett time! The show is back with a bang for 2022, (currently) planned to happen in person. Whether you're heading to the ExCeL or following along online, we have everything you need to know as well as some behind-the-scenes info. See it all from p57.

Wishing you all the best, and until next time,

Charley Rogers, editor

@TeachPrimaryEd1

Charley

Don't miss our next issue, on sale 4th March

#### POWERED BY...



JANE MANZONE
on what we can learn from
EYFS about the joy of
learning, and why every class
should have Golden Time

"Children aged four bounce into school. You see this to a lesser extent as they move up"



#### TIM TAYLOR

shares a letter to the EduTwitter community, on why we need to stop it being a 'battleground'

"What if EduT witter was a forum, a place for respectful and thoughtful debate?"

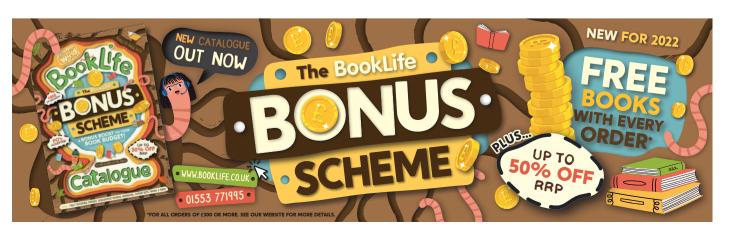
p19



#### DR AMANDA BARTON

has a lesson plan on using weather discussions to explore confident French conversation in KS2

"The weather is an ideal conversation to fit into your daily classroom routine" p84



## Teach Outstanding Computing



Everything you need for a complete computing curriculum



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Teacher Sept. Thinking about Image We learned along pointing with the first later control of the wide for the first later control of the

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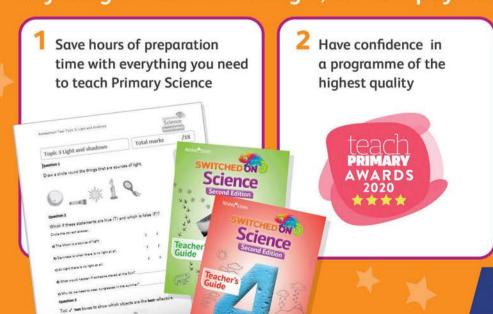
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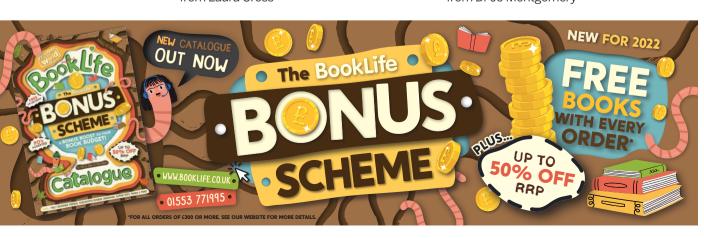
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sure our magazine is a brilliant resource for teachers and are always striving to improve. We love hearing from real teachers about what they liked and what they would change. Got feedback about this issue? Contact us via the details in the panel on the next page - we'd love to hear from you!





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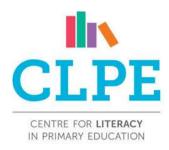
#### **AUTHOR IN YOUR CLASSROOM**

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The Centre for Literacy in Primary Education (CLPE) is a UK based children's literacy charity working with primary schools. The CLPE's mission is to raise the literacy achievement of children by putting quality children's literature at the heart of all learning.

CLPE also provide training, consultancy and INSET to support its book-based learning approach. Discover more on their website: www.clpe.org.uk







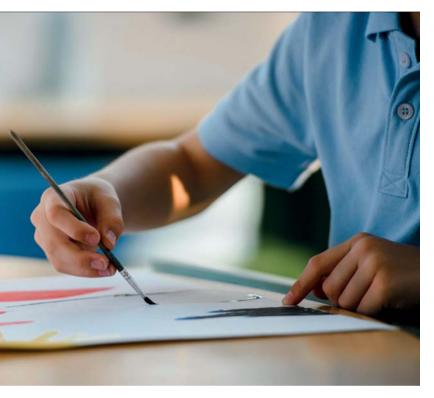




\*\*\*\* "The judges were extremely impressed by the innovative, flexible and holistic nature of this resource. We all agreed that it would have a significant impact on learning and supports teachers' understanding and practice. It is also extremely cost-effective." UKLA

## Breaktine

News | Interviews | Ideas | Resources | Research



#### Refugee education gap

The Education Policy Institute (EPI) has released the first-ever study to examine the educational outcomes of refugee pupils in England. The report focuses on school attainment gaps, exclusion rates and absence rates of the thousands of unaccompanied asylum-seeking children, resettled refugees or asylum support children that have entered the English school system in recent years. The study has found that asylum-seeking children who enter the UK separated from their parents are on average over three years (37.4 months) behind non-migrant children at school by the time they take their GCSEs – a substantial gap, similar in size to those pupils with the most severe SEND needs. See all findings at

tinyurl.com/tp-EPIrefugeechildren

#### 3 INSTANT LESSONS...

(You're welcome)



#### TEACHER WELLBEING

The Literacy Trust has launched a free teacher wellbeing website in response to the urgent need for support among overstretched and time-poor teachers. It includes resources and advice from experts, as well as a video from presenter and author Konnie Huq. Visit tinyurl. com/tp-LTwellbeing



#### GRIEF AWARENESS

Children's charity
Barnardo's has
released free
resources to help
young people cope
with bereavement.
The resources
include a worksheet
exploring grief, and
a volcano-making
activity that focuses
on how grief impacts
us. Visit tinyurl.com/
tp-BarnardosGrief



#### ANIMAL COMPASSION

The RSPCA's
Compassionate
Class curriculum
encourages pupils to
develop compassion
and empathy through
the lens of animal
welfare. Taking a
discussion-based
approach, the
resources are also
PSHE Associationaccredited. Visit
tinvurl.com/

tp-RSPCAclass

## TODAY'S TOP RESOURCES



#### Get grammar sorted!

Grammar Slam from Plazoom allows children to revise and practise key word, sentence, text and punctuation skills and apply them in fun, engaging writing tasks. Presented as PowerPoints, the activities can be displayed for the whole class to complete or discuss. Try it for FREE, at **tinyurl.com/tp-GrammarSlam** 

#### School more stressful than Covid

The Parent Voice Report 2021 from Parentkind, the UK's PTA network, has found that school, not Covid, is a major source of children's mental health issues. It reveals that even at primary school, almost a third of parents say their child has experienced homework stress and anxiety issues, and as many as 88 per cent of parents deem mental health development an important focus within the curriculum. Parentkind CEO John Jolly said:

"Parents want to see mental health support workers embedded in schools to provide timely support and professional,

age-appropriate counselling services.



Parent Voice Report 2021

#### Primary Headteacher of the Year

Pearson's prestigious National Teaching Awards has honoured Reema Reid, headteacher at Hollydale Primary School in London. Reema is the daughter of a Windrush immigrant who first joined education as a lunchtime supervisor and a teaching assistant in Lambeth, before working her way up to a head of school position. She has focused on coaching and mentoring ethnic minority teachers to take up leadership roles in their schools, among other community projects. See all the winners at tinyurl.com/tp-TeachingAwards

47%

OF BRITS BELIEVE THAT PEOPLE UNDERESTIMATE THE IMPACT TEACHERS CAN HAVE ON THEIR PUPILS' CHILDHOOD, FINDS TEACH FIRST

#### Look ahead | Book ahead



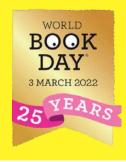
#### GROWING TOGETHER

Children's Mental Health Week is back for 2022, with the theme 'growing together'.

Free resources for use at home and at school are available at tinyurl.com/tp-MentalHealthWeek

#### **WORLD BOOK DAY**

3 March 2022 is the 25th anniversary of World Book Day! Find ideas for how to celebrate, and explore a lineup of books for just £1 at tinyurl.com/ tp-WBD





### **Hugh Dennis**Actor

#### What was primary school like for you?

To start with I went to a very free and easy Montessori where we had no set lessons but just had to do a bit of every subject each day. Then after we had moved areas, for the last two years I attended a big, much more rigid North London primary where I joined the rest of the Baby Boomers in a class of 43! I suppose it taught me to be adaptable and I enjoyed both.

### Why do you think Shakespeare continues to be so relevant for primary school children?

Shakespeare is one of our greatest storytellers and every child loves a good story. His works take children on amazing adventures around the world, introducing them to extraordinary, memorable characters and beautiful language.

Despite these stories being over 400 years old, children discover that the themes – such as friendship, rivalry, triumph, pride and love to name just a few – are still so relevant to all of us today.

### How do you think making these films will impact children's school experience?

The pandemic has caused unprecedented disruption to children's education and interaction with their friends over the past 18 months. Making these films has enabled them to come together once again, to communicate and collaborate with their classmates through a shared purpose, and to build their confidence.

Engaging with the arts in projects like these is so important for equipping children with the skills and creativity they need today and for the future, and opens up a world of possibilities.

Hugh is currently working with Coram Shakespeare Schools Foundation, whose free resources for primary schools, including a KS2 scheme of work, are available at tinyurl.com/ tp-ShakespeareSchools



## Is your PSHE Ofsted ready?

Once-a-week PSHE Lessons with a strong emphasis on emotional literacy, building resilience and nurturing mental and physical health.

PSHE, and in particular of its elements of relationships education, sex education, and health education, are of critical importance in every school, and to every pupil...

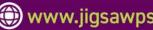
Roary Pownall, Her Majesty's Inspector, Schools - Subject Lead for PSHE Education, RSHE and for Citizenship Ofsted Curriculum Unit



Scan to get the Ofsted takeaway











### you might have missed

#### **FUTURE IMPACT**

Three schools have the opportunity to win a full sustainability review, as part of the inaugural ACS Future Impact competition, organised by ACS International Schools. The competition tasks children aged 7-11 to work in teams to develop and present proposals for how their school and/or their local community can reduce its negative environmental impact. Teams will work together to identify an issue such as global warming, fossil fuels and alternative energy sources, plastic pollution or food waste. Students then have six weeks to develop their proposals before the live final in March, and during the process they will build confidence in science and mathematics with real-life application of their learning through the National Curriculum. More info at tinyurl.com/tp-FutureImpact

2000

### LGBT+ INCLUSIVITY

Eighteen years since Section 28 was repealed, many teachers in England and Wales are still uncomfortable with LGBT+ inclusive education. A survey from LGBT+ charity Just Like Us revealed that only a third of teachers in the UK are completely comfortable talking about lesbian, gay, bisexual and transgender topics in the classroom. The poll of over 6,000 primary and secondary teachers found that the problem is more pronounced in primary schools than secondaries. Only 25 per cent of primary teachers are comfortable discussing these topics, despite Ofsted requiring primary schools to include different types of families – such as lesbian mums or gay dads – in lessons. Read the full report at tinyurl.com/tp-JustLikeUs

#### SUSTAINABLE EDUCATION

The education sector must play a 'central role' in the transition to a sustainable society, says a National Union of Students (NUS) statement, in response to the government's announcement of a Sustainability and Climate Change Strategy. NUS vice-president for further education, Hillary Gyebi-Ababio, said: "It's vital the government recognises that climate change awareness needs to be taught across our curriculum. After years of inadequate action from politicians, we must equip students with the skills and knowledge needed so that they can tackle this crisis and meet the green jobs of the future. Sustainability must also mean transforming where we learn, and this should include retrofitting all educational buildings." More info at tinyurl.com/tp-**NUSsustainability** 



#### AFTER-SCHOOL ARCHAEOLOGY

The Council for British Archaeology (CBA)'s Young Archaeologists' Club (YAC) has announced the launch of brand-new after-school sessions. The YAC currently takes the form of weekend clubs for 8–16-year-olds, running in informal learning spaces such as museums, community halls and parks, run by dedicated volunteers. The YAC after-school clubs mean that teachers and educational professionals will be able to set up these events within their setting. Schools will receive the same support as affiliate branches, including lots of resources to help support teachers deliver engaging club sessions. More information is available at tinyurl.com/ tp-YACafterschool

## HELP DISADVANTAGED KIDS SHINE

Teachers are being urged to apply for a share of up to £150,000 to develop projects that help disadvantaged children to succeed at school. Education charity SHINE has launched its annual funding competition, Let Teachers SHINE, to support innovative teaching ideas. The competition offers grants of up to £25,000 over two years to teachers who have brilliant ideas to help disadvantaged children in the North of England to succeed in English, maths or science, and is open to qualified classroom-based teachers who would like to pilot a promising early-stage idea in their school. Entries close on 18 January 2022, and winners will be announced in the spring. Apply at tinyurl.com/tp-TeachersSHINE

#### POOR DIGITAL ACCESS

Only two per cent of teachers in the most disadvantaged communities say all their pupils have adequate access to devices and internet for remote learning. So says an analysis of Teacher Tapp data from education charity Teach First. This is five times less than the most affluent schools (10 per cent) and three times less than the national average (six per cent). In addition, three in four teachers (75 per cent) in the most affluent schools say they have enough devices for at least three quarters of their pupils, compared to just one in four teachers (25 per cent) in the most disadvantaged schools. Sixty-four per cent of headteachers also confirm they do not have enough funding in their existing budget to ensure all pupils have adequate digital access. More info at

tinyurl.com/tp-DigitalAccess

#### COST CONCERNS RISING

The financial pressure on schools and parents to fund education is increasing, Parentkind has found. The Parent Voice Report 2021 reveals that more than half of parents think the increasing pressure on school budgets is negatively impacting their child's education, and 45 per cent have been asked to contribute to the school fund. This is the highest percentage of requests and contributions the survey has seen in six years. The demographics perceiving the strongest negative impact on their child's education were those with a child with SEND, those eligible for free school meals (FSM), those based in London, and those living with a disability. See the report at tinyurl.com/tp-ParentVoiceReport

#### FEATURES COMPUTING



## 6 WAYS to use spreadsheets in KS2 computing

Spreadsheets are not just a relic from the old ICT Programme of Study, and can be ideal for teaching computing concepts, says Terry Freedman...

#### 1 DATA

Spreadsheets are an ideal way of getting across the concept of different data types, which is essential to know in programming - in particular strings and numbers. Ask your class: "What kind of data is a telephone number?" The knee-jerk response is usually to say it's a number, but this isn't true in terms of computing. Enter 0208 123 4567 into a spreadsheet, and try multiplying it by a number. The word VALUE! will appear, indicating that you're attempting the impossible.

#### 2 | DECOMPOSITION

Pupils need to be able to solve problems by breaking them down into smaller parts (decomposition). Indicate this using what percentage of pupils use which mode of transport to get to school. Spreadsheets are helpful here because they allow you to set out the elements of a problem in a very visible way. For example, column A could be headed 'Pupil Name'; column B, 'Car' and so on. It's best to make allowances for 'outliers' now, at the design stage, so data will be easier to interpret later.

#### 3 | VARIABLES

Variables are the mainstay of spreadsheets. Without them, all you have is a very basic calculator. Have the children create a simple spreadsheet that will produce the greeting, 'Hello [their name]. Name the cell where you enter the variable (pupils' names) as, say, MyName. In another cell, enter the formula ="Hello **"&myname**. The = sign tells the spreadsheet that a formula is on its way. The quotation marks indicate a string data type. The & tells the spreadsheet to join up the string with the variable. When a pupil enters their name in the variable cell, they will receive a personalised message.



Terry Freedman is an edtech writer and publishes the ICT & Computing in Education website and newsletter at ictineducation.org

#### 4 | INTERPRETATION

Pupils also need to learn skills to interpret spreadsheet data, because it's hard to see any patterns in a table of numbers. Using the transport example from above, a better option would probably be to explore how to create and then print a pie chart or bar chart from the data, because that would show at a glance the most and least popular ways of getting to school. To make a chart, select the data with your mouse, and click on Insert-Chart.

#### 5 | ERROR-CHECKING

Computers are great, but they can't 'know' if entered data is accurate or not. The solution is to choose some rules in the Data-Validation menu. For example, students can 'tell' their spreadsheet that a cell (such as age) can only contain a number within a certain range. That way, if a pupil enters their age as, say, 110, the spreadsheet won't allow it, and consequently won't produce bizarre results! Pupils can also use the IF formula to check whether, say, all the different ways of coming to school add up to 100%. If not, why has the mistake happened?

#### 6 LOGIC

The Programme of Study for computing stipulates that pupils must understand and be able to apply logic. In a programming context this means setting out what will happen if X is true (or false). Pupils can see how named variables might work in a program, using the logical formula IF. For example, ask pupils to enter their age in cell A1. In cell B1, enter the formula =IF(a1<13,"Sorry, you're too young!", "Sorry, you're too old!"). Then, if a child enters an age less than 13, they will receive the message 'Sorry, you're too young!' and if they enter an age over 13, they will see 'Sorry, you're too old!'. You can of course change the messages, and the age variable, to anything you like.





Pupils make
learning gains of
between 3 and 5
months in reading
attainment



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## Handwriting Pens and Pencils

#### STABILO EASYgraph

The STABILO EASYgraph has grips that are moulded into the pencil and are designed to encourage the preferred tri-pod grip and are approved by UK teachers\*. There are versions specifically for left and right handers. It also comes in a handy class pack with 48 pencils.

#### STABILO EASYoriginal

STABILO EASYoriginal ergonomic handwriting pen is approved by UK teachers\* and there are versions for left and right handers. The non-slip grip zone has been designed to encourage the recommended tri-pod grip and reduce muscle fatigue. It also comes in a handy class pack with 36 pens.









## Free Pen Licence!

Moving from writing with a pencil to a pen is a big step in a child's development. To reward children for their hard work and achievement in accomplishing this feat, STABILO have created the STABILO Pen Licence.

Sign up to receive your FREE Pen licences at:

www.stabilo.com/uk/pen-licence You'll also find lots of helpful resources. **Jane Manzone** VOICES



### WHAT EVER HAPPENED TO **GOLDEN TIME?**



@HeyMissSmith

#### Academic progress is important, but we mustn't lose sight of giving children genuine choices in school

mproving academic standards and creating tightly disciplined environments have been high on the political agenda for the past few years. The dominant vision for schools makes little mention of choice for children in a relentless antichild-centred narrative, and there is no talk of genuine joy in the conversations surrounding the latest

evidence-based teaching models.

If we require children to behave in increasingly restricted ways in order to provide the ideal learning conditions, we have to ask, is there a danger of creating dull-eyed automatons? I also question any definitions of joy within the latest fashionable pedagogies, if that 'joy' appears through artificial ceremonies rather than the spontaneity of unexpected human interactions. We all know what an oxymoron 'organised fun' is.

I have spent the majority of the last 25 years teaching in Years 5 and 6. My recent move to EYFS has been a fascinating if exhausting ride. Initially I was overwhelmed by the drastic changes in my daily routines, as well as how and what I had to teach these tiny people. Things like 'putting on a coat' or 'holding my knife and fork properly' had simply not occurred to me before. Half a term in though, I am beginning to find my feet, have had some time to properly reflect on the differences, and I am really loving my job.

Children aged four bounce into school. To a lesser extent you can see this as children move up, but it is very apparent in our youngest pupils. Of course there are some tears as they get used to being away from primary care-givers, but with a little support to overcome this, they soon begin to really enjoy school.

Much of a teaching day in EYFS consists of child-led conversations and interactions. A crucial element to teaching extremely young children is listening and guiding them as they are at play. My observations these past few weeks have thrown into

sharp relief the difference on the 'joyometer' readings between this phase and KS2.

I have been considering what it is that causes the dampening of exuberance and lessening of laughter at length as children travel up the school, as it does seem a real shame.

Firstly, there is a lot of talk in EYFS. A little listen in to their conversations and you can hear them negotiating and assisting each other in all manner of things. We humans are social creatures so it stands to reason that these levels of social interaction make my class happy.

We sing and dance a lot, too. The singing and especially the dancing result in a lot of laughter. Make a silly noise or pull a daft face of any sort and a class of four-year-olds are almost certain to erupt in fits of giggles. There is notably less singing and dancing as you move further up the school, and there is a lot less room for silly noises or faces.

I believe the main reason for the change in the 'joyometer' though, is choice. It's great to have choice isn't it? We all love feeling like we have control over what we do. Children are no different. However, as they move through school, pupils' choices over their day-to-day

routines reduce drastically.

When I was at school in the 1980s, Friday afternoons were 'Golden Time' for every year group. Even when I first started teaching this was a common thing, yet I haven't heard of a school which still has 'Golden Time' in KS2 for quite a while.

Does this matter? I mean, self-regulation and focused attention are important, right? Well yes, they are, but we mustn't lose sight of giving children genuine choices.

The more you remove choice from human beings the harder they will find it to discover pleasure in what they do. That's why we send people to prison. It is a punishment to have no choice. Clearly there have to be rules in schools, as there are in life. Children have to get used to the world, but the world does have choices for adults. Are the environments we are creating a true reflection of this? Are we over-structuring and constraining variables for the right reasons?

I'll leave you with this thought: would you prefer to see children choosing to go to a poetry club for Golden Time, or a whole school reciting 'The Charge of the Light Brigade'? I know which one I'd go for. TP

Jane Manzone has been a primary teacher for 25 years. She currently leads EYFS and English in Farringdon, and hosts a weekly radio show on Teachers Talk Radio.





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Lorna Beard VOICES



### HOW WE IMPROVED MENTAL HEALTH IN OUR SCHOOL

**Lorna Beard** discusses how a wellbeing programme has helped light up pupils' future and improve staff confidence



@eastmidsacademy



emat.uk

eer pressure, social media, video games, disrupted home life and educational struggles are just a few things that can trigger mental health issues in children. But throw in a pandemic, several lockdowns and a school with 44 different languages being spoken and you could have a real melting pot of emotion.

Our school, Castle Academy, is located in one of the most deprived areas of Northampton, so we already have a lot of challenges when it comes to meeting the demands of our students. But it's not only our area that's affected. The recent Children's Commissioner 'State of children's mental health services 2020/21' report, released in January, highlighted some concerning figures, such as that one in six children now have a probable mental health condition, and although access to mental health services for young people is improving, it is still far from adequate.

However I didn't need a report to tell me this. Having worked in education for 26 years, I had already seen the impact poor mental health can have on young people. This helped me identify fairly early on that prevention is better than cure.

So, alongside in-house initiatives – such as Calm Corners in classrooms; Hobbit Holes at playtime, which provide children with a safe space to get away from the hustle and bustle of the playground; and Worry Monster post-boxes all over the school so pupils can post their concerns any time to be followed up by an adult – I decided to sign up to LightBulb, the St Andrew's School Mental Wellness Programme.

Also suitable for secondary schools, LightBulb has been written by teachers at St Andrew's College, and is designed to help educators spot the early signs of mental health issues in children and then take appropriate early action. It provides a ready-made framework for schools so they can demonstrate and



showcase excellent mental health practice to regulatory bodies such as Ofsted, while also ensuring they've got a really solid culture around supporting pupils with their wellbeing.

The programme successfully targets young people and equips them with the skills they need to be resilient. In turn, this hopefully reduces the distress they experience, while positively impacting outcomes. I firmly believe early intervention is essential and can make a huge difference to the wellbeing of those children who are experiencing mental health issues.

St Andrew's is located at a psychiatric hospital, where the majority of patients have been sectioned, and as such headteacher Cheryl Smith is incredibly passionate about mental health. Cheryl and her team work with some very poorly young people who did not receive the help they needed until it was too late. This really highlighted to me how vital it is to

ensure our children get the support they need when they need it.

As part of the programme, we also received mental health awareness and support training for all our staff, as well as sessions for both parents and students. We learned about symptoms, support, and resources. Staff at all levels received the training, because for us, a large part of the rollout was ensuring that every single team member would be able to spot the signs that worry us, so that nobody goes under the radar.

LightBulb is not just about helping children, parents and teachers to recognise the signs early, it's also about creating a culture of positive mental health which is driven by school leaders and embedded in practice. If all schools adopted this approach, I really think we could significantly reduce the number of children who go on to develop complex mental health problems, while also encouraging them to establish coping skills that are vital for overall development.

Now everyone at Castle feels more confident in spotting the signs early and stepping in before permanent damage is done. If you're a school that's open to honest and professional dialogue and wants to move things forward, then I think the support you will get from St Andrew's is open-ended. Having seen first-hand the difference LightBulb has made, I can confidently say it's changed children's lives and will go a very long way in providing the building blocks for openly talking about worries and concerns, which if left, could have devastating outcomes in the long-term. TP

Lorna Beard is head of inclusion at the East Midlands Academy Trust. More information on LightBulb is available at stah.org/education/light-bulb/





for Children's Mental Health Week 2022 (7–13 February) at tinyurl.com/tp-MentalHealth2022



Scott Pughsley VOICES





## DON'T DROP THE Q-BOMB IN FRONT OF PARENTS!

Calling a pupil 'too quiet' can rouse plenty of negative connotations, so what's stopping us from dropping it altogether?



ScottPughsley

hat makes a great student? Irrespective of whether you are a teacher, pupil or parent there is a general consensus that great learners have characteristics that support them to do well; that maximise learning by allowing the teacher to teach and the student to learn.

We usually take this to mean those

We usually take this to mean those pupils that don't disrupt the lesson, don't restrict the learning of others, try hard, take feedback on board, are respectful, have high expectations for themselves, and follow instructions. Similarly, we as educators make subconscious and even conscious decisions as we walk down the corridor about how good a class is – and how

effective a teacher is – from a fleeting glance into a classroom.

Loud lessons with students turning around chatting, or out of their seat, give an indication that learning isn't focused and that the teacher isn't strong (except perhaps in EYFS!). In contrast, silent classrooms with students working hard indicate 'proper' learning and a teacher who is on the ball. We all know that this isn't necessarily true in practice, yet there it is, the little voice in the back of your head, judging that noisy lesson.

So, where does calling pupils 'quiet' come in? If we view well-behaved students who work hard as the good ones, and quiet lessons as the best kind, why does the epithet cause so many negative feelings?

We've all heard it – the parents or carers

of the hardworking, focused, well-behaved and all-round lovely student sit down on parents' evening, and amidst the glowing report, the teacher drops in "They are a bit too quiet". Panic stations! The parent suddenly falls into social concern mode and shoots a distressed look across the table – images of a disconsolate and anguished child lingering in the back of the classroom, unloved and unengaged, swimming through their minds.

What a strange world this is. A pupil misbehaves and their parents get told they're "too chatty". This doesn't overly alarm them; their child is clearly having fun, making friends and – most importantly – getting involved in the class. But then a child does everything they're supposed to do in order to be a good student – head down, work hard, don't fuss – and get harpooned with "too quiet". Let's face it, the words are dogged by negative connotations. They conjure up a disengaged, lazy pupil who is uninterested in sharing their opinion or trying to find answers to questions – hardly what our busy, self-promotional world is set up to celebrate.

So, why say it? Well... we shouldn't. There is no reason to vocalise the fact that you think anyone is too quiet. Think about the instances where you've used this term. Is there a reason? Do you think they should share their opinion more? Fine, then say that. Be specific. But 'too quiet' helps no one – quite the reverse in fact. It's not developmental, but it's also not a flippant comment that has no detriment. It can't be worked on and it certainly isn't useful.

This parents' evening, think about what you actually want to convey as an area of improvement, then say that, instead. Or, bear with me here, maybe if we want chatty, engaged pupils, we should be more accepting of chatty, busy classrooms. Times are starting to change, slowly - especially with younger pupils - to embrace the 'controlled chaos' of students actively learning. But if we want to get rid of the stigma of 'too quiet', we need to reform our classrooms. This is obviously a much greater cultural shift than stopping our use of a certain phrase, so it's going to take longer to become the norm. Therefore, in the meantime changing the way we describe our more reserved learners will have to do.

Ultimately, there's nothing wrong with 'quiet'. Some of the greatest minds are 'quiet', yet unfortunately right now, the label can still be damagingly negative for a pupil. So, a plea from a 'quiet' child; if you don't have anything specific to report then *stay* quiet – don't *say* quiet. **TP** 

Scott Pughsley is a teacher, teaching and learning coach, and head of geography at a secondary school in Accrington. Each issue we ask a contributor to pen a note they would love to send

## A letter to... the EduTwitter community

EduTwitter has become a battleground, but it doesn't have to be that way, says **Tim Taylor** 





og into
EduTwitter
over half-term,
scroll down
a couple of pages,
and you can almost
guarantee you'll find

a thread of teachers and educationalists hurling insults, arguing over semantics, or using screengrabs to start a pile on: "Have you seen this – for pity's sake."

But what if it wasn't like that? What if EduTwitter, rather than a battleground, was a forum, a place for respectful and thoughtful debate, a medium for sharing and talking about ideas and practice? What would that be like?

Well, scroll on another page or two and you'll find it. EduTwitter is not one thing; it's many things to many people, and it's evolving. I've been on Twitter for nine years. Back when I joined it was all about Progs vs Trads – two tribes at war, fighting over the future of education.

This was a battle (so I was told) that had been raging for two thousand years (give or take) and was now something you had to take sides over – you were either a Prog or a Trad, there was no in-between. I was a Prog apparently, and that meant an enemy of promise, one of the blob, a phonics-denier, a lover of Brain Gym. Funny, I'd never felt like any of those things.

The situation has changed in recent times. There are still occasional flare ups over Original Sin or videos of children

reciting poetry, but these are isolated instances, like rockets landing on Orwell's Londoners in 1984. Some of the fight has gone out of it, along with the energy. Most of the combatants from nine years ago have muted or blocked one another or moved on. The time is ripe for change.

What might that change look like? Well, here's one thing: let's stop calling it a battleground. Most teachers (I'm going to stick my neck out here and say 95 per cent) are neither Trads nor Progs. They might lean more towards one end of the divide than the other, but the vast majority are practical, hardworking, conscientious professionals with an overwhelming belief in doing right by children. They don't want to be at war with a 'side', they want to find out what works and do more of it.

Since the 1960s, education has seen a series of ideological cycles, each one lasting about a decade, rejecting the one before and framing its proponents as the enemies of children. This process has damaged progress in education and split the profession to the benefit of politicians. We have an opportunity now not to repeat the mistakes of the past.

There are signs we are coming to the end of one cycle and are at the beginning of another. Much of the energy of the current cycle – the knowledge-rich curriculum, direct instruction, and strict behaviour policies – is running out. This is not because these subjects aren't important, they are, it's because they've become orthodoxy (a sure sign

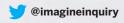
something has become orthodoxy is when Ofsted start mandating it), and as a consequence, boring.

At the moment we are in a lull, a period of calm. Who knows how long it will last, maybe a few years, but eventually the guns will fire up and the war will begin all over again. But it doesn't have to be this way; education doesn't have to be a battlefield. We can listen to one another, recognise the advances that have been made over the last cycle, and build on them.

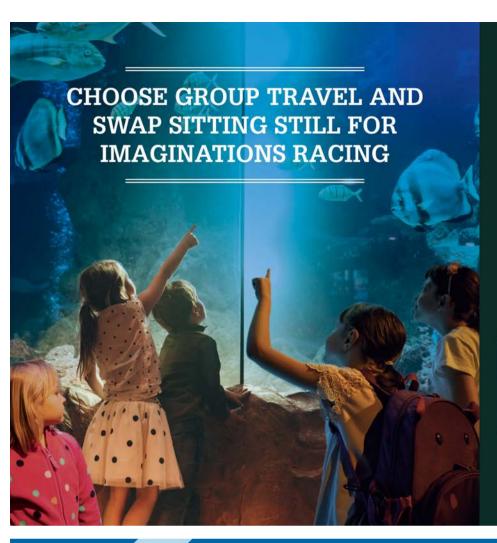
In fact, let's look back over previous cycles and build on them, too. I'm a huge fan of Dorothy Heathcote and John Holt. We don't have to tear down the last generation to build the next. We're not at war with either Oceania or Eastasia, whatever the propogandists tell us. Let's recognise progress has been made, while acknowledging the last cycle has not solved all the problems of education. In fact, like any approach, it has thrown up new challenges and new unintended consequences for us to tackle. I'd say the next cycle needs to look at student engagement, imagination, utilising stories, active learning (embodied cognition), and solution-focused approaches to behaviour support. You might disagree, and that's fine - let's talk about it on Twitter.

From Tim

Tim Taylor is a freelance teacher, and author of A Beginner's Guide to Mantle of the Expert







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## How I do it

Help your KS2 class learn about how light travels with this hands-on science lesson

#### JAMES PHILLIPS

Begin by having a group discussion about light. Explain to the children that light travels in a straight line, and to demonstrate, use a card-and-slit experiment. Take a piece of card and cut a slit in the middle. Ask one pupil to hold this piece of card, and another to hold a black piece of card directly behind it, leaving a gap of around 30 centimetres (you can use almost any distance, but a ruler length is a good measuring tool).



t OASIS we make a conscious effort to make the learning as interactive and practical as possible. The children respond well to physical activities that bring the learning to life. We also try to incorporate the opportunity for teamwork into the sessions – a major focus of ours.

Science gives an ideal opportunity to do just this. Our topic this half term is light, and the aim of the session below was for the children to understand how we see things. I realised that the children needed more than an explanation; they needed to see it for themselves...



Turn off the classroom lights and close blinds if needs be, to allow visibility for a torch beam. Ask the children to observe what happens when you shine a torch through the slit. Ask another pupil

to hold the torch, and let children discuss why they think the light on the black piece of card looks the way it does.

Turn the lights back on, and discuss how fast light travels. Ask the children whether they think light or sound travels faster, and then explain the answer using thunder and lightning as an example (you always see lightning before you hear the thunder). Children will be amazed to learn that light travels 5878,625,370,000 miles in one year, which is known as a light year.





Another way to demonstrate light's journey is by using string. Get one child to stand holding the end of

a length of string against the window. Ask a second pupil to take the other end of the string and hold it against an item in the classroom, such as a table, chair or book. A third child will then pull the centre of the string towards the eyeline of the rest of the class, demonstrating how light moves between its source, the item, and the human eye to allow for sight.



You can repeat this experiment using different members of the class and different light sources, getting them to come up with a list

of things that emit light
(classroom lights, phone
torch, window, etc). You
can also record the lesson
by asking the children to
draw diagrams in their
books after completing
the experiment, and
then writing down and
illustrating some facts
they've learned.



James Phillips is the OASIS manager and Y5 and 6 teacher at Swinnow Primary School in Leeds.



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#### UNDERCOVER TEACHER

Our anonymous educator gets something off their chest

## Why fancy reading corners completely miss the point

don't know about you, but I have been handed my non-negotiables for how to inspire children to read far too many times, most of which are centred around having a reading corner in the classroom. Not just any reading corner. Oh no, a super-duper, all-singing, all-dancing reading corner with cushions, lights, modern books and colourful posters with quotes from fictional characters.

Don't get me wrong, a reading corner can look nice, but unless you actually engage with the children and their reading, there's not much point to them.

Helping kids learn to read, and to truly enjoy it, takes time, effort and lots of enthusiasm, but it's always worth it. I am about to share with you my reading top tips. Are you sitting comfortably?

They are:

- 1) Read to the children
- 2) Listen to the children read
- 3) Allow children to read in silence

 $\label{thm:continuous} Unfortunately, these suggestions have not gone down well in some schools.$ 

Let me explain. I asked a teacher the other day if he had any copies of Alex Rider books. "I'm not sure," he replied. "What about any Philip Pullman books?" I enquired. He didn't know for sure. His reading corner looked lovely, but he had no idea what books were on his shelf. As I took a closer look to find the particular titles I was looking for, I soon discovered the familiar reading corner reality.

The book case was packed. But over 50 per cent of the books were damaged and unusable. Protective coverings were absent, decades-old editions that looked dated, sat unloved. A common misconception schools have is that because they have lots of titles for the children to choose from, their provision is good. Nobody likes throwing books away, so they sit forlornly in the reading corner for years.

The book case was packed. But over 50 they enjoy them"

Our school how top of the agendar reading corner to went to town of they sit forlornly in the reading corner for years.

One school I worked at recently told me off for throwing away lots of books in my reading corner. The titles were all very tatty and over 20 years old. "Why on earth did you do that? Now we don't have enough books!" the head exclaimed. I nodded and said, "Yes, you might have to spend some money now. Children need a wider range of books that are new and attractive enough to want to pick up."

I told another headteacher recently that over half of the books in classrooms had been funded by the teachers. She was shocked. The book cases looked packed so she had no reason to assume she needed to replenish stock.

Crafting trees, lampposts and other 3D objects in my reading corner serves absolutely no purpose unless it contains half decent and modern books! Telling KS2 teachers to have cushions and twinkly lights in their reading corner is a lovely idea, but within minutes of pupils standing there, I hear them saying, "Hurry up, choose a book and sit back down." Or, "Stop talking, please." In fact, having children in the reading corner is often more

disruptive than productive.

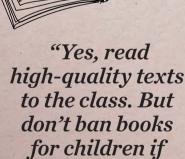
One non-negotiable that always makes me angry is to 'ensure high-quality texts are accessible in the reading corner'. I

know it might sound odd to oppose
this, because of course, in an ideal
world, 'high-quality' texts would be
wonderful. But in reality, schools
often can't or won't spend money
supporting this statement, and it's the
teachers that get it in the neck.

Or worse still, I've been told to remove books that kids love – by David Walliams, or *The Diary of the Wimpy Kid* series. I don't understand this attitude. My first headteacher said I had to remove all the *Beast Quest* books from my room because he felt the story lines and language were too simple. Snobby attitudes like this irritate me. Yes, read high-quality texts to the class. But don't ban books for children if they enjoy them.

Our school had a reading learning walk recently, and top of the agenda was ensuring each class had an exciting reading corner to inspire children to read. Everyone went to town of course – they looked amazing. We all passed! But the quality of the books in said corners were substandard and thus, utterly pointless.

So, no matter how new and plush it is, a reading corner *really* is only as good as its books. Schools need to ring-fence money every year to buy decent titles, and realise that a smattering of twinkly lights won't do it. **TP** 



The writer is a primary teacher in England.





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In the face of rising mental health issues for children, all teachers should receive trauma training in school

## Julie Harmieson

traumainformedschools.co.uk

ike it or not, teachers and schools are a frontline mental health service. According to the NHS Survey of Mental Health in Children and Young People 2021, probable disorders in children aged six to 16 increased from one in nine in 2017 to one in six in 2021.

The study also highlighted that almost 70 per cent of parents sought support from an education professional in regard to their child's mental health, compared to 38 per cent from a health professional. Access to Child and Adolescent Mental Health Services (CAMHS) continues to be problematic, leaving children and families in difficulty.

Add to this the impact of lockdown, in which some children experienced increased exposure to stressors such as poverty, isolation, increased levels of domestic abuse and the profound experience of losing loved ones, and the problem only grows. Kids have also had to deal with difficult issues such as the conceptual losses of safety, structure, freedom to act and the inability to mark milestones. It's a lot to cope with. As a result, schools are seeing high levels of anxiety and behaviours in the classroom that are underpinned by traumatic experiences, and ultimately interrupt learning.

When a child experiences continued stressful events in the absence of an emotionally available adult - someone who responds to their needs, provides co-regulation and helps them make sense of events - their stress response system becomes overactive. This is known as toxic stress and manifests in brain and body systems that are altered by the experience, leaving the child in a hypervigilant state, primed to survive, not to learn.

These responses are the child's best attempt to manage their situation, but place them at a huge disadvantage in the classroom. Unable to learn, and often met with punitive behaviour management strategies or zero-tolerance cultures that seek to supress the behaviour and gain compliance, these children find themselves escalating through the system, facing fixed-term suspensions or even permanent exclusion. This is far from rare, and government statistics identify 'persistent, disruptive behaviour' as the main reason for exclusion - (34 per cent across all state funded schools in 2019/2020).



Without trauma-informed training, teachers may be ill equipped to recognise and respond appropriately, unwittingly contributing to trauma, or re-traumatising a child. This can happen through inappropriate behaviour management strategies, or school environments that exacerbates the child feeling unsafe.

Adopting a whole-school, trauma-informed approach involves training every member of staff to understand that children whose brains and bodies are experiencing toxic stress are not in a state where they can learn, academically or emotionally. Teachers are trained to recognise the behaviours associated with toxic stress, and view behavioural challenges with professional curiosity, for example asking "What happened to you?" rather than "What is wrong with you?". Recognising that the child's behaviour is a response to an experience or crisis supports adults to respond consistently from a steady place, reducing stress and increasing confidence.

Teachers need to be equipped with the knowledge and skills to create psychological safety within the classroom, to ensure all children feel safe enough to learn. This involves understanding how voices, faces, body language and ways of relating to

children contribute to the unconscious perception of safety, downregulating the stress response. Strong, positive relationships also act as resilience factors for children, buffering the impact of adversity.

Pupils spend an average of 190 days a year in school. The best people to support a child to recover from the impact of trauma are those who spend the greatest amount of time with them. We as educators are best placed, in collaboration with parents and carers, to do this.

The benefits are many, including improved attendance for children and teachers, staff retention, improved academic achievement, reduction in positive handling, and reduced low-level behaviour.

As teachers, it has always been our remit to remove the barriers to learning. Trauma and the experience of adversity in childhood is just that. By providing a trauma-informed and responsive environment for every child, we enable all children to feel safe enough to learn and develop the ability to live life well. TP

Julie Harmieson has over 18 years' experience as a teacher and senior leader and is now director of education and national strategy at Trauma-Informed Schools UK (TISUK)





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## WHYI INT.

Ben Slack, education success partner at Whizz Education. talks about the award-winning virtual tutor Maths-Whizz

#### **ABOUT ME:**

#### NAME:

Ben Slack

#### JOB ROLE:

Education success partner at Whizz and former teacher

#### **FAVOURITE FEATURE:**

The adaptability features, allowing each child to have a personalised learning pathway

#### **TALKING ABOUT:**

MATHS-WHI77 VIRTUAL TUTOR

/ How did you hear about it? I used Whizz Education's virtual tutor Maths-Whizz in my classrooms for seven years; initially at a school in rural Lincolnshire with a Y6 class of 32, where many of the children came from less advantaged socioeconomic backgrounds. English was an alternative language for 40 per cent of the students, and several children had special educational needs. The beauty of Maths-Whizz is that it adapts to every child's ability, taking them on an individual learning pathway. It enabled me to bridge the common four-year learning gap between the lowest and highest attainers found in all educational settings, and provide individualised lessons.

How did you use it? I also used Maths-Whizz at an independent fee-paying school in Cambridge to positively challenge high attaining pupils. The virtual tutor enables the effective use of limited time. I found a higher level of existing knowledge due to the children's use of Maths-Whizz, which gave them a real confidence boost when teaching new topics, and they were able to grasp new concepts more easily. The teacher's lesson planning resources use the same layout as the tutor, so barriers to learning are removed due to consistent clarity of information modelling.







#### Contact:

Whizz Education, London

Phone: 0203 328 6564 Web: whizz.com

#### What is Maths-Whizz's impact?

With time pressure on teachers to cover all areas of the curriculum, ensuring children have reached the required degree of autonomy before moving onto a new topic can present its challenges. Maths-Whizz covers and re-covers basic to advanced skills, honing in on weaker areas to ensure confident application of knowledge. Maths-Whizz also has a 'topic replay' function so children can always return to old learning objectives to reach bronze, silver or gold standard, which is an excellent indicator of fluency.

How does it help maths anxiety? Maths anxiety is a notoriously common issue. Because Maths-Whizz pays attention to a broad range of topics within the curriculum, as a teacher I could isolate data on individuals. As everyone has different strengths and weaknesses, this enabled me to create a more fluid mix of groups within the classroom. It also gave children less time to think about who was good and who was struggling, as with each new topic, they would be in a different group because of actual feedback from the tutor. This offers a 'fresh start', making children feel confident and in a comfortable place to learn.

#### WILL IT WORK FOR YOU?

- Maths-Whizz offers tailored, individualised compliments face-tolearning pathways that adapt to a child's ability
- The virtual tutor face teaching, making the best use of the limited time available
- · The teacher's resources provide >1200 preprepared lesson plans to save time
- The tutor is a fun way to encourage children to learn to love maths



STUART TIFFANY

re you a bit sick of teaching about the Great Fire of London for your unit on events beyond living memory? Me too. According to the most recent Historical Association survey (2019), this is still the most popular event taught in primary schools for this unit, with a whopping 80 per cent majority.

So, why not try delving into the first flight instead? It's topical, given the technological developments that have been made and the role flight plays in our modern lives, and could also easily tie in with the current debates over climate change. One caveat to consider is that given the pandemic and massive reduction in flights over the last two years or so, the answer to some of these questions will be somewhat different to those

pre-Covid.



were born. Ensure pupils understand this was the first time an aeroplane with an engine was able to fly a significant distance.

If the children have studied other aspects of history, add these to the timeline as well, to ensure that pupils see their historical studies with a sense of chronological framework.

#### WEEK 1

#### Learning objective:

- Use a timeline to explain when the event happened
- Discuss the enquiry

Introduce the concept of flight by asking the children who has been on an aeroplane. Encourage students to bring in personal experience about the purpose of flights for holidays, and you can extend this with other uses of flight such as for military and commercial reasons. It's important that the pandemic is acknowledged as an anomaly - in that we haven't been able to travel on aeroplanes as widely because of Covid - but

that it is a normal thing for people to do.

Next, introduce the first enquiry question and discuss its meaning:

#### When was the first flight and how do we know it happened?

Children need to be clear that there was a time before aeroplanes existed, and the focus of the first enquiry is to find out when the first powered flight took place. Show the event physically on a timeline to highlight it happened approximately 120 years ago (model downloadable at the link above). The fact that the first flight is beyond living memory, and indeed much further in the past, can be shown by indicating the relative position of when the children and teacher

#### Assessment

As an informal assessment for this week, ask the children to use a copy of the timeline and talk about when the first flight was in relation to what they already know. This could be a cloze procedure writing task if you're looking for something more concrete.

•••••

#### **WEEK 2**

#### Learning objective:

- Talk about the people involved
- Identify where in the world the first flight happened

Recap on the timeline and how you used it in the last lesson to help answer part of the enquiry question. Discuss with the class the fact that you all now know when the first flight happened, but today they are going to find out where in the world it took place. Begin by showing the children a world map and identifying the UK. Ensure children know its name and that they live in this country. Then, narrate the journey across the Atlantic Ocean to where the first flight happened. Explain the country is called the United States of America and is thousands of miles away from the UK. Ask pupils how we would travel there today, and that without the first flight, we'd have fewer options.

Next, zoom in on the state of North Carolina on the map and explain that this is where the first flight happened, in a town called Kitty Hawk. The children can use a similar map to navigate from where they live to where the flight happened. They should mention the name of the country, but it's even better if they can remember the state or town.

Introduce the Wright brothers as the two men who designed, built and flew the

first aircraft. It took them over a hundred glider designs, and they had a big problem to overcome - an engine powerful enough to fly their creation! We still have some of their notebooks and designs to help us understand

what they did that led to the first flight. Show pictures as examples of the evidence we still have - you can see some plans and photographs from the Wright Brothers virtual museum at tinyurl.com/ tp-WrightBrothersFlier



the lesson to remember that will help them answer the enquiry question.

Get pupils to write down key facts from This can be done with a scribe in groups, or independently.



Begin by orientating the children back to the first flight on the timeline. Discuss how we know it's beyond living memory, and over 100 years before the children were born. Prompt the children to remember that we still have aeroplanes today but that they look different to the Wright brothers' flier. Then, introduce the idea that we need to use evidence to help us understand history, which can come from lots of different places like books, films or artefacts (objects from the past). Remind pupils that we quickly looked at some examples last time re-show the photos and drawings you have of the Wright brothers' flier.

Model what we can learn from the pictures and how we use them. Annotate some of the features of the flier that we learned about before, such as the engine, controls and where the pilot flew from. The children can write captions for these areas or add others. Prompt them to remember that the evidence helps us to explain our answers to enquiry questions fully.

Next, talk about the Wright brothers' diaries, and that these add extra information to our answers. The diaries tell us about what happened before and after the events shown in the pictures (another exercise in chronology).



Ask the children to collate the evidence they have found and record it ready to write their answer to the first enquiry question. The answer can be presented in a variety of ways, such as a video in front of a green screen or as part of an assembly.

•••••

#### WEEK 4

#### Learning objective:

- Sequence aircraft through time
- Begin to talk about changes in flight

Begin by showing the class a series of photos of aeroplanes through history (you can download some at the link above). Ensure the Wright brothers' flier is

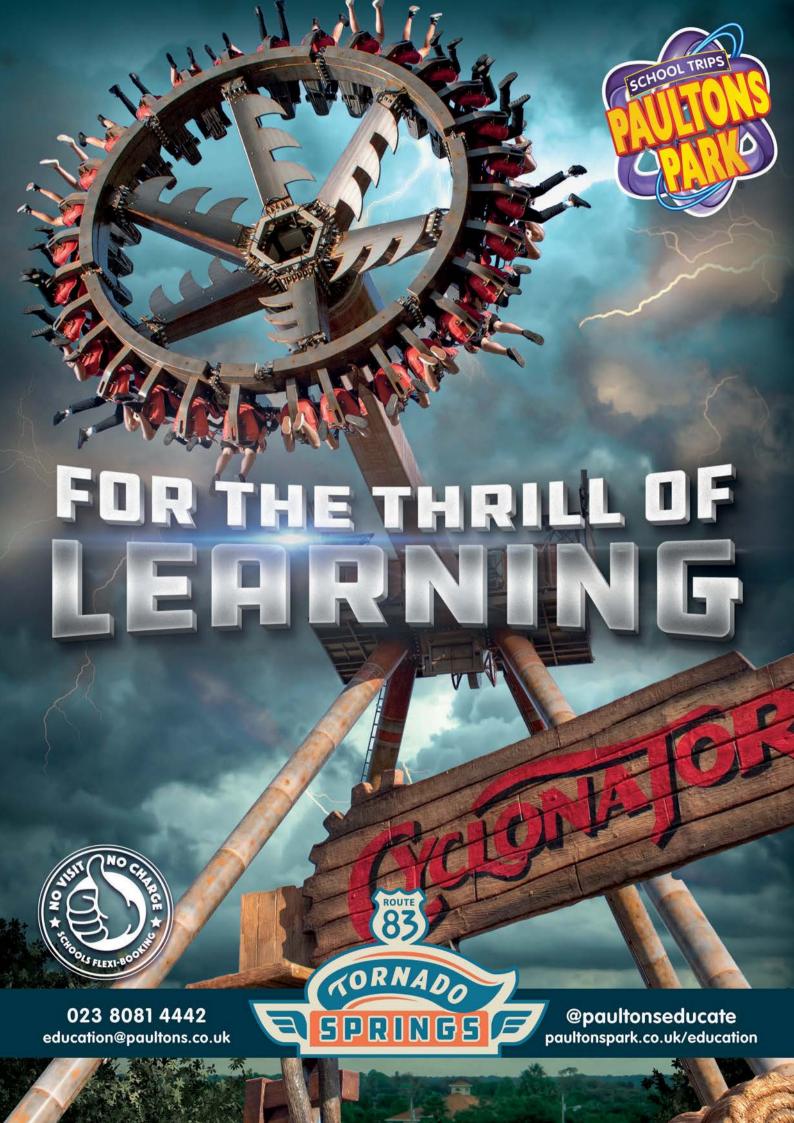
included, as it marks the start of the sequence of development. Explain that the pictures show different kinds of aeroplanes, and that we can use them to identify how these machines have changed through time. This will introduce the second enquiry question:

#### How has flight changed since the Wright brothers' time?

Next, ask the children to put the aeroplane pictures in order, from oldest model to newest. Support them to discuss







why they have sequenced the examples in the way they have, and be careful to explain that a black and white picture isn't necessarily older than a colour one. Once children have finished putting the pictures in order, you can place them on the class timeline and relate the sequence to other items marked on it.

#### Assessment

As an informal group assessment. choose a picture of a modern aeroplane and compare it to the Wright brothers' original craft. Encourage pupils to use the two sources of evidence to look at changes that occurred by circling the different features.

•••••

#### WEEK 5 Learning objective:

• Identify changes in aircraft

Recap on the history of flight using the BBC Bitesize video at tinyurl.com/ tp-BBCFirstFlight and the timeline of aeroplane advances you made last lesson. Ensure children know that they are learning about how aeroplanes have changed since the Wright brothers' first creation, and that we are focusing on changes we can see. Using the model produced at the end of the previous lesson, recap on how we can find and mark changes.

The children can complete this collaboratively or individually, and record



transporting goods and/or people, finding people that are lost, journeys for exploration, and fighting in wars.

Note that not all the uses help people, and see how many the children can come up with, making a class display to collate knowledge.

To take the concept of change further, pupils could explore whether all of the changes have been positive. This could look at conflict and topical events based around climate change. You can ask them to complete this task individually, in pairs or groups, or approach the discussion as a whole class.

#### WEEK 6 Learning objective:

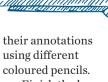
• To choose and use evidence to answer questions

••••••

Now that the children have studied some of the



Pupils can practise their full sentences by writing a short report about how aeroplanes have changed since the Wright brothers' flier. Encourage the children to seek out evidence to support their conclusions, from the selection of documents you've used through the unit.



Finish the lesson by talking about the changes the children identified, before introducing the assessment.



Introduce the fact that aeroplanes now do different jobs, including

ways in which aeroplanes have changed, they can present their findings by using their annotations to create sentences, or via a different medium such as video or a dramatic scene, as before.

The children should be encouraged to talk about the evidence that they are using in their answers and how it has helped them explain their thinking.



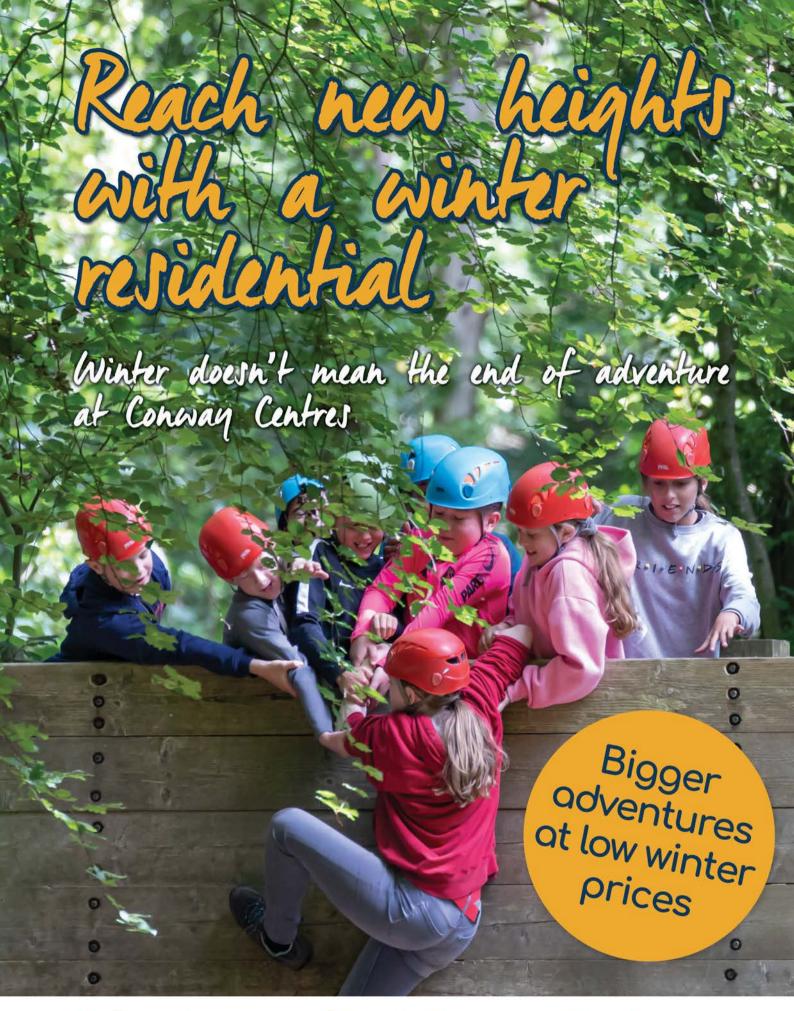
Stuart Tiffany is a primary teacher, history CPD provider and consultant. He supports schools to embed the historical discipline within their curriculum.



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#### **RECONNECT RELATIONSHIPS**

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## iust fantastic memories. Education is at the heart of

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## People, places and environments

Forget tea-stained treasure maps, familiar places are much better for learning essential geographical skills

STEVE BRACE

hile we most commonly use a map for the vital business of getting from A to B, they offer much more than a simple navigational tool. Maps document how we consider and understand our world, bring meaning and representation to 'blank spaces', and reveal the challenges of representing a 3D world on a 2D sheet or screen.

This will be evident to primary teachers whose pupils have created their own maps. Children will indicate the significance of real-world features through their inclusion or omission; they might draw symbols at different scales to show how some features might be more or less important than others; and may draw connections between places – even if they are not necessarily adjacent to each other – to depict journeys.

Such work is a vital part of primary geography. It supports pupils' mapping skills, develops their ability to think geographically about the world and fulfils key requirements of the Geography National Curriculum at KS1 and KS2.

Map skills

There is much to celebrate in primary geography, although Ofsted has recently noted that with respect

to mapping there is need for improvement. This vital aspect of geography was often not taught particularly well, and pupils' own maps often lacked accuracy or did not use the conventions followed by geographers. Ofsted also noted that pupils with colour blindness (which affects about 1:12 males and 1:200 females) may face challenges when using maps, particularly when distinguishing reds and greens, and more support on this issue is available from the Ordnance Survey and RGS.

While there may be the need for specific lessons on map skills within a school's curriculum, an important approach is to ensure that maps, atlases and globes are used regularly across schemes of work, so that the skills can be applied to real places and contexts. This allows pupils to reinforce their abilities and use maps to gain more detailed insights into the places they are studying. Examples of this approach can be seen in the Royal Geographical

Society's (RGS) schemes of work for Rivers and Mountains – which integrate the use of coordinates, scale, symbols and compass direction through the use of Ordnance Survey maps. So, pupils can follow the River Thames journey across three map extracts: from its source at Thames Head; its *EastEnders* meanders through the centre of the city; and onto its mouth at Gravesend. Alternatively, pupils



"Ofsted has recently noted that with respect to mapping there is need for improvement"

can use a map of Snowdon to correctly identify its height from the summit's trig point (1,085M), check whether you can get a train to the summit, or use contour lines to assess which footpath would be the steepest route.

Many schools will also integrate the maps as part of their fieldwork, within the school and beyond. This might include creating plan maps of the school or local area, recording different types of land use and local services, or asking children to record the quality of their local environment - such as the presence of green spaces or traffic control measures. As much of this work might take place in more built-up areas, it is also important to remember to recognise what might seem to be invisible aspects of physical geography, too. For example, even if a local river is culverted or a hill is covered in buildings. both are still important features which should be represented, be it through symbols, labels or - as with OS maps through contours.

#### Covid landscapes

For many pupils, their most familiar maps might well be of their home neighbourhood. The Covid pandemic and resulting lockdowns have brought particular significance to how we interact with our local areas, and to better understand this experience the RGS has been working with research geographers at Queen Mary University of London and the University of Liverpool through the Stay Home Stories project. This asks children to explore the lockdown period by creating maps of their homes and local areas (and schools are still welcome to submit

their maps to the project). The children have taken many different approaches and styles; some of the maps are pictorial, depicting the 'classic' four windowed, pitched roof house with smoke billowing out of its chimney. Others provide a bird's-eye or plan view (an essential mapping skill) reminiscent of the 'floor plans' that might accompany an estate agent's details. Others still have laid out the locations of key features of their neighbourhoods and the routes that connect them. A selection of these maps can be viewed on the Mapping Home Gallery (tinyurl.com/ tp-StayHome).

Clearly maps, globes or atlases need not be restricted to a geography lesson, and adding them to other subject areas can enhance children's understanding of the world. For example, they can help pupils to locate where Crimea is as part of their work on Mary Seacole and Florence Nightingale, or provide a geographical context to places featured in literature and fiction - whether a story is in the UK or further afield.

So, before reaching for the tea bags to stain an imaginary 'treasure map', do pause to consider how the use and creation of maps of real places might be a more appropriate way to develop your pupils' geographical skills. Whether created by the OS, found online or drawn by a child, at their heart 'real maps' share and connect information about the world's people, places and environments three key building blocks for primary geography. TP



Steve Brace is head of education and outdoor learning at the Royal

Geographical Society.



@Stevebracegeog



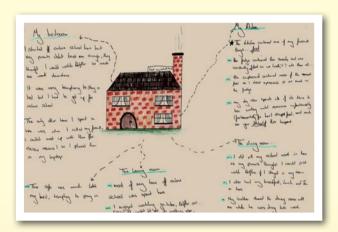
#### rgs.org

#### **Mapping home**

Children's 'familiar space' maps, as part of Stay Home Stories. Find more at tinyurl.com/tp-StayHome

Not my actual home 'My bedroom: it was very tempting to stay in bed, but I had to get up for online school'

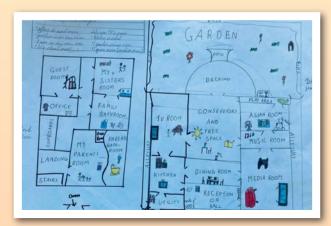
- Scarisbrick Hall School



Welcome to the 6th floor 'The living room where we watched TV during Covid times' - Manchester Grammar School Juniors



A Bird's Eye View The kitchen: where my mum makes brilliant food' - Manchester Grammar School juniors



### FAIR PLAY

Jill Wright and Marie Beale explain how extended playtime has helped improve inclusion and behaviour at their school

hat does inclusion look like at Whitefield Primary? For us, the most important thing is that it underpins our culture.

One of our children told a visitor this week: "We don't talk about the Whitefield team. If you come here, you are part of the Whitefield family. Everyone belongs." Don't get us wrong, we are far from perfect, but we're proud that staff strive to include all our children by giving each individual what they need in order for them to achieve.

#### Start strong

The children's journey starts in Early Years where we follow a play-based approach to learning. We have seen many benefits of this, particularly in supporting children to learn how to share, self-regulate and resolve conflict, and develop relationships with peers and staff. We noticed that the children joining us later in school struggled more with those areas, and did not always have the same emotional foundation as pupils that had been with us from the beginning of their school life.

So, we planned to reconsider our lunchtime experience for the whole school, based on what we've learned with our Early Years cohorts... then lockdown hit.

As we returned from the first Covid-19 lockdown and considered how to rebuild, we quickly identified that there was also now a need to reconnect and rebuild our relationships with the children, and help them to remake friendships with their peers. Building on

this, we decided to implement open-ended, loose parts play usually reserved for Early Years - in our whole-school break for half an hour each day and over lunchtimes. We visited the Leeds ScrapShed and collected an eclectic mix of crates, pipes, pots, pans, wheels, cable reels, dressing up and other flexible items to create excitement and engagement. We used training times to work with our staff to see play as an opportunity for children to develop and learn.

Initially, we were supported by our expert Early Years team in modelling and understanding play opportunities. We made sure we could resource the play and briefed the children on the importance of play and how to be together. Staff worked with children to develop ideas about how they could use the resources and taught pupils how to care for them, as they were initially destructive.

Wholeschool play

Now all our class-based staff join in the extended morning play time. This is no longer 'playground duty' - our challenge is to help children of every age to have a rich, imaginative, and varied experience. At first, the need for Covid zones helped with this, and since it worked so well, we decided to maintain play zones with different resources this academic year to make sure the play stays fresh and exciting.

We are fortunate to have a large outdoor space and have, over time, invested

to develop it. We now have an urban forest, two large sandpits and lots of green, calm spaces. These are rich environments, but loose parts play works just as well on our normal playground - having open-ended resources and skilled facilitating adults was

the benefits of a much more positive experience meant

everyone recognised that



that children were able to learn more easily and were not as disruptive in class – significantly less learning time was lost sorting out disputes after lunch! They also found their adult-child relationships were much stronger through the shared experience of playing and creating together, and loved seeing children full of joy.

**Behavioural** 

playground never happen. However, our behaviour logs show they have dramatically reduced, particularly among our neurodiverse learners. When incidents do happen, it is rare that senior leaders need to get involved, and those incidents are lower level, so take less time to sort out.

extended playtimes, we underpin everything we do at school by using 'zones of regulation' as the basis of our behaviour policy, so that children are taught emotional literacy and can build a toolkit of strategies to help them first co-regulate, then self-regulate their emotions, and so their reactions. This is key for many of our learners who need additional support, and during playtimes means that all our staff and children have a shared language to discuss any conflict or heightened emotion, and children develop their own toolkit to manage themselves, or communicate when they need help.

In tandem with

This includes making clear links with the physical impact of emotions, and on how to recognise and avoid triggers. We use the Take Ten app (letstaketen. com) which visualises heart rate and helps children to recognise and change what is happening to them. Our next steps will be to teach parents more about regulation and play so we can work more seamlessly together. We are thrilled to have been given a

grant from SHINE UK (shinetrust.org.uk) to trial this work in Early Years, with a view to rolling it out to other schools in future.

#### Valuing each child

We're also on a journey to become an Attachment and Trauma Sensitive Gold School.

All members of staff are trained to be Adverse Childhood Experiences (ACES) aware, and we have tried to build a culture where all staff recognise that they may be the one that a child chooses as their 'special person'. Playtimes give children the chance to develop these relationships and feel safe and secure.

For our neurodiverse children, play also fulfils their need for sensory breaks and gives space to spin, run, jump and be absorbed in their own interests, with an adult alongside to facilitate social relationships and help manage emotions. The playtime project was central to our journey to ADHD-friendly school status.

Finally, of course, we recognise play is just one part of the inclusion jigsaw. At Whitefield we have tried to maximise the impact of inclusion by really focusing on core high-quality teaching in classes, with the aim of integrating all children as much as possible; for example, using visual timetables with the same symbols in every class and in assemblies; a clear, ordered learning environment which is consistent class-to-class for neurodiverse learners; and the creation of sensory corridors and spaces. Our Growth Curriculum also includes social thinking and understanding of diversity in terms of SEND as well as other aspects.

All this to say, our school motto is not an empty set of words, but one which we live by every day: 'We value each child for who they are and prepare them for who they can be'. TP





Jill Wright and Marie Beale are headteacher and deputy headteacher, respectively, at Whitefield Primary School, which won the 2021 nasen Award for Primary Provision (nasen.org.uk/awards)

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### LET'S ENHANCE THE ROLE OF EDTECH

The pandemic has brought digital technology to the fore, now let's make the most of it, says **Gary Spracklen** 

tudies consistently find that digital technology is associated with learning gains. In 2018, more than 340,000 students in 51 countries took the PISA ICT survey, providing a rich data set for analysing key questions about technology use. The responses gathered suggest that systems that take a comprehensive, data-informed approach may achieve learning gains from the thoughtful use of technology in the classroom.

Unsurprisingly, the best results come when significant effort is put into ensuring that devices and infrastructure are fit for purpose (e.g. a fast enough internet service), that software is effective and integrated with curriculums, that teachers are trained and given time to rethink lesson plans integrating technology, and that students have enough interaction with tech to use it effectively.

#### An invaluable impact

Online learning and education technology have provided an invaluable service by enabling learning over the course of the pandemic. So, how do we maintain a productive approach to enhancing the use of digital technology in education?

The Education Endowment
Foundation (EEF) defines digital
technology as 'the use of computer and
technology-assisted strategies to support
learning within schools'. Approaches in this
area vary widely, but generally involve:

• Tech for students, where learners use applications designed for problem solving or open-ended learning; or

• Tech for teachers, such as interactive whiteboards or learning platforms.

The EEF also states that 'on average, an additional four months' progress is seen when digital technology is deployed effectively', and that 'it is unlikely that particular technologies bring about changes in learning directly, but some have the potential to enable changes in teaching and learning interactions. For example, they can support teachers to provide more effective feedback or use more helpful representations, or they can motivate students to practise more.'

In my experience, evidence is a problematic concept when thinking about digital technology in education, because it's difficult to show a clear causal relationship between a single variable (such as the introduction of phones) and learning outcomes.

What's clear to me is that digital technology has changed the nature of disciplines outside school and thus should also impact on the curriculum inside school.

#### **Assessing outcomes**

Frustratingly, the existing metrics in education (including high-stakes summative testing and QA frameworks, e.g. the Ofsted Framework) haven't been changed enough to reflect this, and thus fail to capture new impacts that digital technology has on practice and learning outcomes. The new strategies for collaboration (such as social media) is a good example, as is the new weight placed on remote collaboration within the workplace during the pandemic.

As we move forward, taking lessons from the last two years, a productive approach to enhancing the use of digital technology in education would be to adopt

an engineering mindset, rather than a more traditional scientific one. Thus, rather than trying to disprove hypotheses, the focus should be on building upon the success of specific solutions to refine them. It's often suggested that NASA would never have got an astronaut on the moon if they had adopted a scientific



This article first featured in our sister title The Headteacher. Find out more at primaryleaders.com

approach, because they would have quickly found evidence that it wasn't theoretically possible. That isn't to say that one shouldn't build upon sound scientific evidence – as, for example, we do with the new revelations from cognitive science.

Of course, a great deal is known from research on the pioneering UK implementation of digital technology in schools that started in the early 1980s. Indeed, in 2006, a review of the implementation of part of the Harnessing Technology strategy highlighted that the problems being encountered then were the same problems that had been identified by research over the previous 30 years, which had not yet been addressed (Twining et al., 2006).

At the heart of this is a debate about learning outcomes, which are themselves complex and multi-variate. What I would say, though, is simply this: try something new that has already worked elsewhere and where you have seen and trusted the outcomes. Tailor it to your context and feed back your own conclusions as they emerge. **TP** 



Gary Spracklen is headteacher at The Prince of Wales School, Dorchester, former Digital Educator of the Year and a member of the DfE Educational

Technology Action Group (ETAG).



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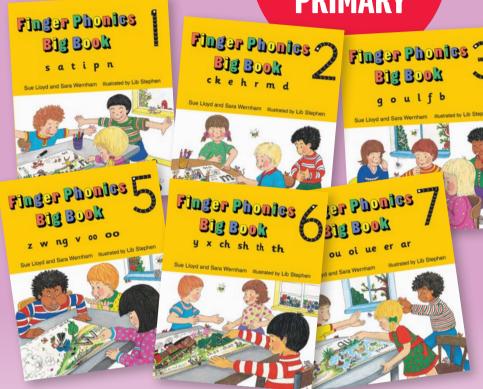
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## SPECIAL

#### INSIDE THIS SECTION



Steve Chinn explores seven strategies for supporting dyscalulic pupils



Sway Grantham on how to help KS1 connect technology with the world around them



Dr Jo Montgomery shares winter-themed science ideas for your class



### Engineering ideas **FOR EVERY** CLASS

Laura Cross discusses why you don't have to be an engineer to teach the subject, and shares activities to engage every year group

ngineering is all around us. Engineers are behind everything you use each day, from the scooters your pupils ride to school to the kettle you make a beeline for at 3.30.

Young children are natural-born engineers, constantly investigating to understand how things work. However, as they move through school and practical learning makes way for the more theoretical, children start to think less and less in this way.

Engineering isn't explicitly part of the primary National Curriculum, but it does form part of design technology, ICT, science and maths. It can also be drawn in across the curriculum, such as by building your own viaduct when studying the Romans.

If you haven't been teaching any engineering, maybe you're put off because it sounds complicated, like it's going to need loads of resources, or maybe make a mess. But making time for engineering in your classroom can not only be fun, it can also improve outcomes for your pupils and for society as a whole!

Starting to bring more of this subject into your classroom doesn't have to be complicated or time-consuming, either. In fact it can be one of the easiest subjects to teach because pupils have to work things out for themselves.

Here are some simple ideas to get you started with your class using accessible resources and minimal prep time:

#### Bridge building for EYFS

Resources: Pile of hardback books: small world characters or animals: two classroom chairs.

#### **Activity:**

- 1. Place your small world characters or animals on one chair with around a 15cm gap to a second chair.
- 2. Ask children what could help the character cross from one chair to the other. You can add a narrative to this with water/trolls below etc. 3. Once you've discussed the idea
- of a bridge, ask them to use books to build a bridge. They will likely place one book across the gap and you can show the character successfully crossing.
- 4. Next move the chairs further apart and ask them to make another bridge. This time they'll need to overlap the books to create a bridge. 5. Let children work in small groups to see who can make the widest bridge from books and extend by adding a requirement to support a certain weight or number of characters.

Engineering thinking: Pupils will be investigating and testing the type of books that work best, how best to balance the books, the need to weigh down the ends of the books, as well as measuring and counting distance and weight.

#### Bridge building for KS1

Resources: Selection of junk modelling materials such as straws, craft sticks, paper cups, cardboard; tearable tape (eg washi tape); scissors.

#### **Activity:**

1. Start by creating a river that a bridge must cross. You could tie this in with the Three Billy Goats Gruff story to add a cross-curricular element. Make your imaginary river from a piece of material, sheets of A4 or some exercise books. Make your river around 20-40cm wide.

2. In small groups, give pupils a selection of junk modelling resources to build a bridge to cross their river. You might demonstrate how they can join the materials with tape, but don't give any bridge ideas yet. 3. Give pupils time to build, sharing good models with the rest of the class and building on ideas where necessary. This works best when you don't give any ideas to start with so each group thinks of their own bridge design. You'll be surprised at their creativity! 4. If pupils build their bridge

Engineering thinking: Pupils will plan, design, build and test structures making constant improvements and iterations to solve problems that arise.

#### Bridge building for

Resources: Sheets of A4 paper, piles of chapter books. glue sticks, small weights such as coins, counters or blocks.

#### **Activity:**

1. Create two piles of books of the same height, at least 5cm high. Measure a 15cm gap between the books and demonstrate to pupils they need to create a paper bridge to cross the gap.

2. Place one sheet of A4 paper as a bridge and then add your small weights one by one to the centre of the bridge to see how many it can support before buckling. Don't hold or weigh down the ends of the bridge,

this first time.

3. Next tell pupils in small groups they must make a bridge to support the most weight they can using only two sheets of A4 paper. They can fold and/or glue their paper in any way they like. Give them time to investigate different ways of folding the paper, sharing good models and suggesting ideas where necessary. They can use the KS2 paper bridges worksheet to record their designs and the weight each bridge supported. 4. If necessary, after a few minutes suggest that folding the edges of the bridge up like a handrail on each side will work well and they can investigate different heights for the fold. 5. Give a set period of time to see which group can build the strongest bridge and then share and discuss the results.

#### **Engineering thinking:**

Pupils will be investigating by planning, designing and testing different bridge constructions and thinking about how the same material can be used in different ways to impact its strength. TP



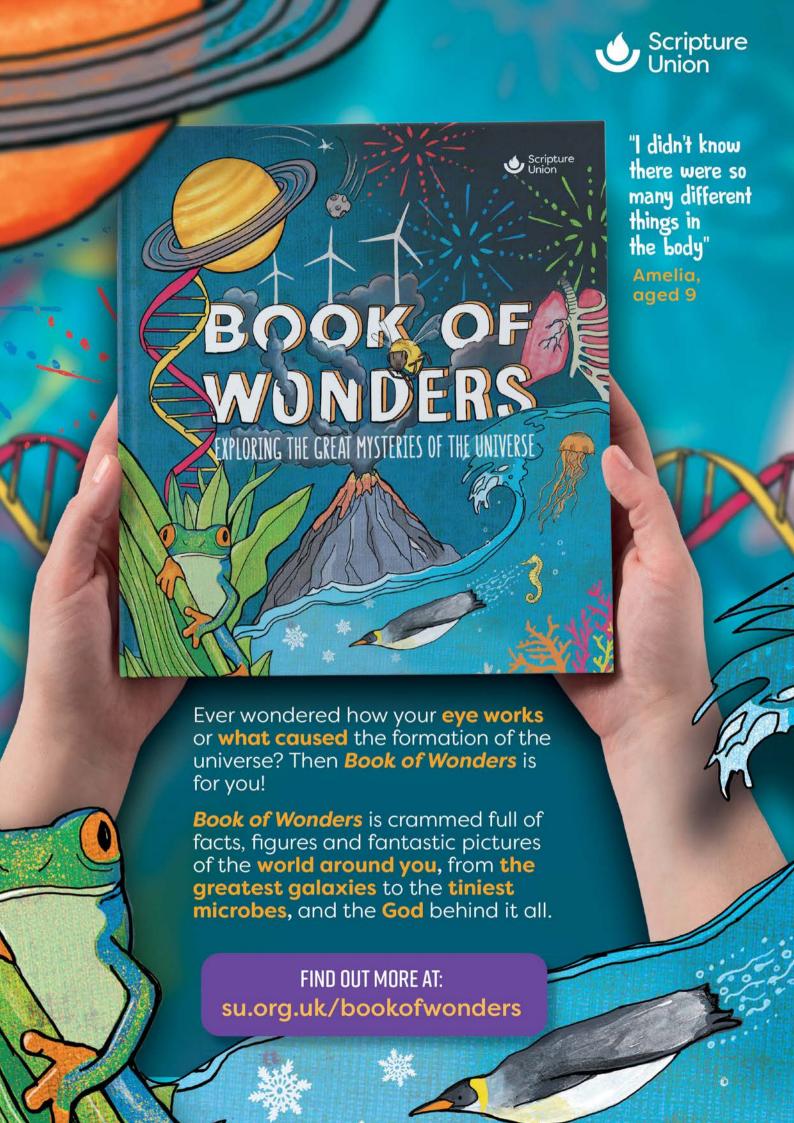
Laura Cross runs Inventors & Makers workshops, clubs and classes to

bring hands-on engineering and design to primary schools.

inventorsandmakers.com

@InventorsM





## Number BLOCK

Steve Chinn explores seven strategies to support dyscalculic pupils...

yscalculia is a specific learning difficulty with mathematics, primarily arithmetic. Researchers agree that there is no single profile and there are many contributing factors, but there are key difficulties that are common amongst dyscalculic children. The simple strategies laid out here address some of them, and I hope will help boost your pupils' confidence.

#### The counting trap

If pupils have an over-reliance on counting in ones, use manipulatives and visuals, such as base-10 blocks (Dienes), to provide images of quantities and to interlink them. Use recognisable and consistent patterns based on 1, 2, 5 and 10 (the core facts). For example:



Pupils can be shown how 'chunking' (partitioning) can help them work beyond ones.

#### Counting backwards

Dyscalculic pupils may have difficulty counting backwards or reversing maths sequences. This requires working memory, so it can be much harder than many teachers and parents recognise. It sets the foundation for subtraction and is a good opportunity to demonstrate vocabulary such as 'take away', 'subtract' and one of my favourite questions: "Is it bigger or smaller?".

#### Sense of number and estimation

Objects set out in recognisable patterns create the foundations for developing

these skills. The question, "Is it bigger or smaller?" is useful. For many pupils, the basics need frequent revisits, topping up memory and securing understanding.

Remember that children may also have difficulty estimating and keeping track of the time.

#### Place value

A child can learn to count to 10, but writing '10' as two digits is a very sophisticated and underrated task in terms of understanding how that communicates 'ten'. This can be demonstrated as a cognitively developmental sequence, using base-10 blocks on a place value card as the starting point, then weaning the child down to using just the symbols.

You can use a similar process to demonstrate multiplying and dividing by 10, 100, and so on. Try to avoid a reliance on the concept of 'add/ take away a zero'.

#### **Recalling facts**

One of the key difficulties for dyscalculic learners is retention of basic facts and maths procedures in their long-term memory. But, like most of the learning problems in maths, this is not exclusive to dyscalculic pupils, and there is a spectrum of abilities for all the factors listed in this article. However, you can show children how to link patterns (and their symbols) to demonstrate addition and subtraction facts, for example:



This principle can be extended to multiplication facts, too, developing pupils' understanding and giving them strategies to access their knowledge.

For example,  $6 \times 6$  is explained and demonstrated as six lots of six. The sixes can be chunked as (6+6+6+6+6) and (6), that is  $5 \times 6$  and  $1 \times 6$ , making 30+6; 36.

This strategy can be applied to many other examples. It teaches the child about multiplication and how it is linked to addition. It also sets the foundation for later, more challenging work on multiplication and algebra.

#### Speed of working

The culture of maths to provide answers quickly is counter-productive for many children, especially those with a slower rate of processing and slow or uncertain recall of procedures. Any help in reducing this (often unrealistic) expectation will be good for these learners. Give them fewer examples, but carefully selected to provide a sufficient breadth of learning experience.

#### Mental arithmetic

Many people think mental arithmetic skills are an essential basic for learning maths. I would challenge that belief. Two key skills you need to be good at mental arithmetic are short-term memory (to remember the question) and working memory (to work out the answer). It also helps if you have quick access to the basic facts. Dyscalculic children often have difficulties with these things, so one reasonable adjustment would be to show the question, not just say the question. Another would be to give more time and allow a jotter pad.

Ultimately, each child is different, and as the great US pioneer of dyslexia, Margaret Rawson said, it is a matter of "teaching maths as it is, to learners as they are". **TP** 



Steve Chinn is a teacher and expert in dyscalculia and learning difficulties.

stevechinn.co.uk/dyscalculia

# Does a speedboat HAVE A COMPUTER INSIDE IT?

How to help your KS1 pupils discover technology, and why not being able to immediately answer questions means you're doing it right!

**SWAY GRANTHAM** 

was once standing in front of a class of Year 2 children, teaching computing, and was asked: "Does a speedboat have a computer inside it?"

Did I know the answer? Not at all. I love computing, I was a specialist teacher in my school, but that does not mean I know how a speedboat works. My answer was 'probably', with a promise to get back to them after confirming my suspicions. However, inside I was excited. A six-year-old child had thought so carefully about what I was teaching them that they'd been able to ask a question to which I didn't know the answer. This is what the computing National Curriculum is all about!

The unit of work I was teaching at the time was called 'IT Around Us' (part of the Teach Computing Curriculum) and it was all about learners having a chance to understand their world. It focused on giving children opportunities to think critically about the things that they take for granted and consider how they work.

Recognising the IT around us is an often overlooked topic. We're keen to learn how to use computers to create things or program robots to move around, yet a solid understanding of what IT is, where it is found and why it's useful to us day-to-day is a foundational requirement for everything else. With technology being disguised in many things, it is increasingly playing a much bigger part in our lives, yet we could easily overlook that if we don't take the time to think critically about what is around us.

#### Encouraging curiosity

When learners enter primary school, there is a divide between how some children have used – or have seen others use – technology and those that haven't. Early Years and KS1 are our opportunity to mitigate some of these disadvantages, and to show learners that the technology around us allows us to do things that we never thought we could!

However, sometimes as teachers, we hide these things from the children, not wanting to admit we are using technology to help us get through the day. Think about how you use tech in the classroom. How much of that do your pupils see?

Some uses include checking email to pick up the latest planning documents ahead of a lesson, asking Google to translate a French word to answer a child's question, looking for a video on YouTube of someone reading the story we're learning about in English, and even taking the register on a computer system. Allowing children to see that we use technology in this way not only lets them know what it's capable of, but they will also start to ask questions about how it works. Where did that planning come from? How did it get from teacher X's classroom to here using email?

These questions, once encouraged, will keep coming. For instance, when you're on your way to assembly and a learner sees you unlock a door with a fob, they might ask "Does everyone's fob open the same doors?" As you pass the fire alarm on the way out to play, you could hear "Why are there so many buttons? Is that how you turn it off?"

Regardless of the answers to these questions, the fact that pupils are engaging with IT, recognising it around them and considering its purpose, is setting them up for success. With more and more systems around them using technology, getting them to consider what it's



doing and why is a lifelong skill that will benefit them going forward.

#### In school and beyond

But it's not only in school that curiosity abounds. A shop setting is a great opportunity to explore the IT that is around us - there's so much to see! Shops have automatic doors, tills, barcode scanners, computers that keep track of stock, and maybe even security cameras. Encouraging the children to discuss the technology they see when they are outside of the classroom allows them to recognise its broader, everyday use that will pervade their lives beyond their time in school.

To explore this further, I use a shop roleplay. However, rather than just playing the customers and shopkeepers,

be the IT as well! I use three roles for the children: customer, barcode scanner and price finder. Each round of the roleplay goes a bit like this:

- The customer selects several items and scans each barcode on the till.
- The scanner beeps, looks up the item from the barcode, and tells the price finder what the item is.
- The price finder looks up the price, tells the customer, and adds it to the till receipt. After all the items are scanned, you can add up the prices.

This gives learners an insight into the role of technology in their world. Why do all these things have barcodes? And when you scan them, what happens as the machine goes 'beep'?

#### FOR MORE KS1 AND KS2 RESOURCES, CHECK OUT:

- Six free computing systems and networks units for Years 1–6 (including IT Around Us) as part of the Teach Computing Curriculum. ncce.io/tcc
- An online course to help you enhance your knowledge and skills as well as how to teach computing systems and networks across Years 1–6. ncce.io/CSNcourse
- A report that demonstrates the importance of teaching computing systems and networks from Years 1–11 and highlights the progression of skills and concepts from KS1 to KS4. ncce.io/CSNreport
- A free PDF of the Big Book of Computing Pedagogy which has support for specific pedagogies such as 'Lead with concepts', 'Unplug, unpack, repack' and 'Challenge misconceptions'. rpf.io/bigbookped

Recognising the range of uses for IT also helps to show learners that technology isn't just about playing games and watching videos online; that not all uses of technology are weighted equally and it's important to not limit ourselves to one. Employing technology to create and share something can be empowering, and we need to consider when and how we decide to use it, and why.

Imagine a world where education empowered all children to recognise the potential of technology, to have the skills to utilise that technology and the understanding to challenge its appropriate use in school and beyond – now that's as impressive as a speedboat having a computer inside of it! TP



Sway Grantham works for the Raspberry Pi Foundation developing free computing

resources and online training for primary teachers. Follow Sway on Twitter @SwayGrantham and see more work from Raspberry Pi at RaspberryPi\_org





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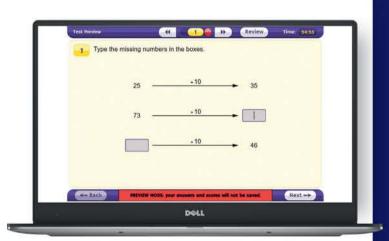












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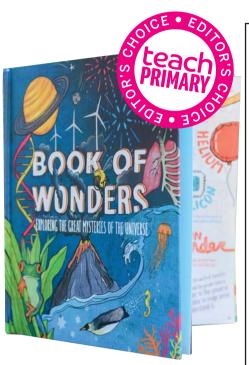


## Smashing STEM

Expert advice and resources to help you teach creative subjects

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If you're amazed by atoms, flabbergasted by fungi or captivated by comets, you'll find something to blow your mind in the Book of Wonders! This exciting, illustrated volume is crammed full of facts, figures and fantastic pictures of the world around you, from the greatest galaxies to the tiniest microbes. The Book of Wonders has been produced in collaboration with The Faraday Institute for Science and Religion, so whether you're looking at the world through the lens of science or faith, it's filled with amazing and wonderful things, and you can help pupils explore both. This is also a great resource to support cross-curricular projects for children aged 8+. Isaac, aged nine, says: "The beautiful pictures and the way it's laid out just made me want to read more." Visit su.org.uk/bookofwonders



#### FIRST LEGO League

Get ready to explore a train-tastic theme! The 2021-2022 season is all about the transportation of goods, with teams required to create a model showing how cargo is sorted and transported to its destinations. Supported by the Institution of Engineering and Technology (IET) FIRST® LEGO® League Explore introduces children aged 6-9-years-old to the concepts of coding, teamwork and design skills, creating an initial interest and hands-on approach to science and technology through the familiarity and fun of LEGO® building. For more information, or to sign up, visit tinyurl.com/tp-LEGOleague

#### Support students

Maths can be a challenging subject for children. Whizz Education knows how important it is to tailor the learning process to an individual's needs, and offers services to meet specific learning goals. These can include planning, teacher training, access to extensive teachers' resources, assessment, capacity building, data-driven course correction and ongoing pedagogic support in addition to the implementation of the award-winning virtual tutor Maths-Whizz.

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#### **Extraordinary** maths!

The Extraordinary World of Maths packages from As Creatives Connect place pupils in immersive, character-led worlds, where the maths has a purpose. In The Race into Space, they'll meet Major Tom of the British Isles Space Agency, using maths to select the UK's next astronaut. The Riddle of the Sphinx sees them working with Egyptologist

Dr Colorado Smith, handling concepts of measurement to solve a millenniums-old puzzle. By featuring linked, themed literacy activities, too, the adventures offer a potent reminder that maths doesn't exist in isolation.

Visit ascreativesconnect.com

## Seasonal SCIENCE

Make snow balls, freeze lego in ice, and build bug hotels in these wintery science activities from **Dr Jo Montgomery** 

t first glance, winter might not appear to be the most obvious time of year to focus on science, especially when thinking about heading outside and considering the natural world, living things and their habitats. However the dark days (and nights) can offer lots of inspiration.

"Winter is a great time to explore the hibernation of wildlife in your school grounds or local area"

#### **Outdoor learning**

Outdoor science learning can be great in winter. An obvious link is to revisit seasonal changes with Year 1 (and Early Years for understanding the world). This isn't limited to infants, however, as these seasonal changes also underpin the spiral curriculum that follows as children progress through the school. From identifying plants and animals in Year 1, to classification in Years 4 and 5 and life cycles in Year 6, wintertime is an excellent opportunity to notice the differences in the natural world.

For example, winter is a great time to explore the hibernation patterns of wildlife in your school grounds or local area. Children could build dens or bug hotels to help insects hibernate (simple piles of sticks, twigs, logs, pots, leaves, stones, wood or bamboo work well), or make seed cakes or bird feeders to help non-migratory birds survive the winter.

The colder months are also a time to explore growing conditions for plants - there are many that like to be planted in winter, including veg such as sprouts, turnips, potatoes and onions. Garlic likes to be planted in winter, too, and you could try sowing early peas, beetroot, spinach or carrots at the end of February if you have a school allotment or small area.

It is also a great time of year to bring in discussions about climate change, and think about what will happen to environments if conditions change (Year 4). I have collated a whole host of resources, links, websites, plans and activities for environmental education in the primary curriculum at

tinyurl.com/tp-DrJoClimate

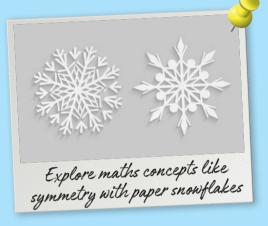


#### OTHER WINTERY IDEAS

- ★ Scavenger hunt for natural winter items, such as a leaf skeleton, lichen or pine cones (or even snow or ice!)
- ★ Link to maths with some nature-based challenges, such as:
  - Make a triangle/square/polygon from twigs
  - Make a circle using stones
  - Find eight brown leaves, find 10 stones, find two birds
  - Use natural concrete manipulatives for maths operations
- ★ Measure and monitor temperature readings (you can also look back at historical data from the Met Office and view trends at tinyurl.com/tp-MetOfficeData)
- ★ Make (and monitor) a rain gauge
- ★ Spot birds to see which ones spend the winter in the UK
- ∦ Investigate how different animals keep warm (links to the polar and environmental science section)
- ★ Blow bubbles in the frost and watch them freeze

#### Ice explorations

When the weather is really cold, let the children explore and discover the changes to the grass, leaves and water on frosty mornings. If you're lucky enough to have snow, allow some snowflakes to land on black paper so children can take a closer look - use magnifying glasses, microscopes or zoom in on photos. Snowflakes always have six sides and are all unique! Children could try making paper snowflakes to explore symmetry and geometry.



Following on from these outdoor observations, explore some cold weather science inside or out: investigate freezing and melting from EYFS up, linking to changing states of matter and environmental changes in Year 4.

Make a snowman, or snow balls (or fill a jar with snow, decorating the outside to look like a snowman), and bring inside to observe what happens! Use some snow to build a snow volcano



outside - fill with sodium bicarbonate, vinegar and some added food colouring for an impressive chemical reaction.\*

You can also make hanging ice decorations by freezing water and natural items such as leaves and berries in shallow dishes, add a loop of string and hang outside from trees. Observe them over time, to see how they change and melt.

This can be extended by freezing small toys in ice and challenging children to find the best way to free them. You could provide items such as salt, sugar, sand, spoons and water to investigate.

Go 'ice fishing' by seeing if you can attach a piece of string to an ice cube and pick it up!

\*Ensure children understand that a volcanic eruption is actually molten rock, not an acid-base reaction!

#### **ENVIRONMENTAL** AND POLAR SCIENCE **INVESTIGATIONS:**

Blubber glove – explore how some animals keep immersing your hand in icy water while wearing a rubber glove filled

Penguin huddle – fill test tubes or small cups (one per child) with warm water (try 37°C for body temperature), group them all tightly together and monitor the temperature to those surrounded by others on the inside of the 'penguin' huddle. Add a fan at one edge for additional cooling effect!

Global warming – in a simple model of the greenhouse effect, using a plastic bottle or glass bowl, monitor the temperature during 'greenhouse' layer

Rising sea levels – make a model in a deep bowl to investigate the effects of melting sea and land ice

Link with DT and design the best sleigh to pull across Antarctica or float a boat

Find even more ideas, including links to DT in the STEM Learning Polar Explorers activity book, at tinyurl.com/tp-**STEMpolarexplorers** 





Dr Jo Montgomery is a scientist and teacher delivering fun and engaging, hands-on science workshops for children, and

supporting teacher professional development as a STEM Learning Lead facilitator, PSQM hub leader and independent consultant.



driosciencesolutions.co.uk



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Keagud Fons

## Explore STEM careers with Tara Binns! "Educational and aspirational and

"Educational, inspirational, aspirational and reasonably priced." Primary Science Teaching Trust

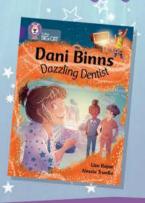
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Challenge gender stereotypes with Dani Binns!









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#### **KEEP UP WITH BETT 2022**

Can't make it IRL? Terry Freedman shares expert advice for following online

Bett is back! It's exciting to think of being able to network in person again, but not all of us will be able to make it, and – sadly – seminars are not going to be recorded this time. However, all is not lost. Here are some ways you can keep abreast of what's happening before, during and after the show.

#### **Before Bett**

The Bett website is live at bettshow.com and you can sign up to receive a notification every time a new article is posted. Go to **tinyurl. com/tp-BettArticles** and subscribe. Next, register for Bett, even though you can't attend in person. You should start to receive updates as the event draws nearer. To ensure you're kept up to date with newly added speakers and exhibitors, subscribe to the mailing list at **tinyurl.com/tp-BettMailing** 

#### **During Bett**

There are several ways of keeping informed on social media. If you have a Twitter account, follow Bett at @bett\_show. The official hashtag is #Bett2022, but #Bett, #Bett22 and #CreateTheFuture are also used. There is also, as you might expect, an official Bett YouTube channel (tinyurl.com/tp-YTBett) which may be worth subscribing to. Even better, search YouTube for bett2022 or Bett 2022, to discover unofficial Bett news and advice, including interviews and personal impressions. You can also listen along to the official Bett Radio station at tinyurl.com/tp-BettRadio

#### **After Bett**

If there are products you'd like to have seen, it's worth getting in touch with

exhibitors. They may have recorded their demonstrations or talks, and you'll find a list of available companies at **uk.bettshow. com/bett-suppliers-list** You can also contact the presenters of seminars you'd like to have attended to see if their slides are available. Obviously, there is no guarantee of a response, but nothing ventured... Find the speaker list at **tinyurl.com/tp-speakers22** 



Terry Freedman is an edtech writer and publishes the ICT & Computing in Education website and newsletter at ictineducation.org

eterryfreedman

## 3 THINGS NOT TO MISS From Martin Bailey at Lanchester EP Primary School



#### NOW>PRESS>PLAY

I first discovered this company in the Bett Futures zone a few years ago, and my pupils instantly loved it. In my 20+ years of being a computing subject leader it is probably the best product I have ever introduced to a school.



#### LANCHESTER DIGITAL LEADERS

My Lanchester pupils will be presenting in the Bett Academy Live (North Hall) at 3pm on Thursday 20th January. They will be presenting 'Coding Across the Curriculum' and will be sharing how students can shape their learning.



#### **BETT FRINGE**

Lots of vendors run sessions in bars and restaurants on the outskirts of Excel, and this is a great way of networking and meeting other visitors. The Bett Teachmeet is also fantastic and I can highly recommend it.



## IF PUPILS GROAN WHEN THE LEARNING STOPS... YOU KNOW YOU'RE ON TO A GOOD THING.



Bernie McNerney

"There comes a time when I have to pause a lesson. When I do, I hear a lot of frustrated 'Aaarrggghhhs!'"

Lansbury Lawrence Primary School, Tower Hamlets **Emma Tranter** 

"I never get tired of hearing the groan from pupils when you pause an LbQ lesson."

Ribblesdale High School, Clitheroe

Rachel Lockley

"The children all pull their faces when you pause LbQ because you're interrupting them."

St Thomas' Primary School, Rochdale

Tracey Stuart

"When we pause LbQ, pupils groan because they don't want to stop. They just want to keep going."

Elm Park Primary School, Havering

Sam Keys

"When I click that pause button, I get a bit of a roar. 'What're you doing Mr Keys?!'
They want to carry on."

St Bedes Primary School, Newcastle

Andy Done

"When I hit the pause button, I get a chorus of 'Oh no!'"

Masefield Primary School, Bolton

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Showcasing how schools can engage with this growing industry, engage students, and support teaching and learning objectives.



#### BETT AFTER HOURS

Grab a coffee, because Bett is running until 8pm on Thursday 20 January, so that visitors who can't make daytime sessions can still experience the show.

#### teach RECOMMENDS

#### Fill the gaps

Recent disruptions to education made the challenge of addressing missed learning and closing attainment gaps harder than ever before. CENTURY helps you identify knowledge gaps instantly and fill them with recommended learning content. With CENTURY you get access to thousands of micro-lessons in English, maths and science for Years 3–11, aligned to the National Curriculum. Pupils receive personalised learning pathways, while teachers can save hours on marking, data analysis and resource creation. Visit **century.tech/primary** or visit Bett stand **NB30**.

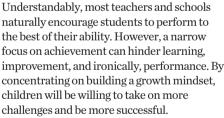


#### **Real-time insights**

Heading to Bett 2022? Visit stand **NG50** to see how Learning by Questions is transforming classrooms around the country. "The atmosphere in class is electric!" says Will Harding, acting headteacher at Holy Family Primary, Bristol. With LBQ, pupils get the right level of support at the right time, teachers get real-time classroom insights at their fingertips, and no child is left behind. Learn more at **lbq.org**, email **info@lbq.org** or call **01254 688060** 

## Building a growth mindset in PRIMARY SCHOOLS

Eduardo Briceño on how we can develop children's learning behaviours



Having a growth mindset is the belief that we can develop our abilities, including our intelligence, as discovered by Stanford professor Dr Carol Dweck. This differs from a fixed mindset which is the belief that abilities cannot change and that people are limited to being skilled at certain things, like maths or sports for example. It is important to understand that having a growth mindset does not act as a silver bullet for achieving these behaviours, but the potential is there.

#### Reflecting on behaviour

Research has shown that children with a growth mindset take on more challenges, work harder, persevere in the face of setbacks, and have a higher competency. It is important that in a primary classroom, we portray

abilities as skills that people develop, not as talents that students either inherently do or don't have. For example, although it may feel positive, we should try and avoid labelling children as 'smart' or 'talented', but rather focus on talking about and reflecting on their behaviours, their choices, and what they can control.

#### Love of learning

It is essential to make learning worthy; kids should find school interesting, valuable and relevant. A great activity to help encourage a growth mindset is to share with your pupils why you love to learn, what you're seeking to learn these days, how you're going about it and what 'aha!' realisations you have had. Then ask them to share something they've enjoyed learning about recently and why. We should develop the idea that learning is a lifelong journey, and help them to identify where their individual passions lie.

Eduardo will be speaking about developing a growth mindset in your classroom on 20 Jan, 3-3:45pm.









#### PRIMARY RECOMMENDS

#### **Rich STEM learning**

Introduce your students to coding and enhance their science, technology and maths curriculum through robotics. VEX 123 and VEX GO are designed specifically for use in primary schools. From colour-coded parts to coding solutions that can be used from EYFS right through to the end of KS2, our aim is to give all students the opportunity to have a rich STEM curriculum. With neat transport and storage solutions, free teacher training and free lesson plans, anyone can teach STEM with VEX Robotics. Find VEX at Bett, stand **SK50**.





#### **Award-winning maths**

Sumdog provides 27 high-quality, highly engaging online maths games for children aged 5–14, with real-time feedback via algorithm-driven, tailored practice for each pupil, and clear and genuinely useful reporting for teachers. As a winner of Teach Primary's Resource Awards 2021 and a finalist in the Bett Awards for 2022, it's already made a difference for thousands of educators and pupils across the UK. Find out more at **sumdog.com** 

#### NOT SURE WHAT TO EXPECT AT BETT 2022?

Check out these lessons from longstanding attendee and Bett pro, Martin Bailey





MARTIN BAILEY

**Role:** Digital enrichment leader

**School:** Lanchester EP Primary

School, Co.Durham

Attending Bett for: 15 years

#### WHAT ARE YOU MOST LOOKING FORWARD TO AT BETT 2022?

Bett for me will always be about the people, and I can't wait to meet up face-to-face again. The organisers did a fab job with 'Bettfest'

online last year, but there are many people who I only ever see at Bett and after two years, it will be wonderful to reunite.

#### **TOP ADVICE FOR A NEWBIE?**

Until you first visit to Bett you can't appreciate the enormity of it. Planning is everything! Make a list of vendors you want to visit and plan a route - there are many different zones. Make a timetable, too, of the talks you want to see, but do allow yourself some time to simply wander. One of the beauties of Bett is discovering those new things. Wear sensible shoes (you will definitely get your steps in) and pack some water. You will most likely be taking photos on your phone and posting on social media about your experiences too, so it is well worth taking a phone charger. Finally, if you can, take a colleague. Bett is most definitely an experience best shared, and things are always far better articulated and disseminated back into school when there has been more than one person visiting. It also allows you to view more of what is on offer. Ideally, try to visit for more than one day as well.

#### **FAVOURITE BETT MEMORY?**

There are lots! I have fond memories of those early shows at Olympia. I used to love the smaller, more independent companies that you discovered upstairs at Bett, and often came away with some great quirky products. My first experience of presenting at Bett is a particular highlight, as is taking my pupils for the first time. However, my standout highlight is presenting alongside my pupils at Bett in 2020 to a crammed-full arena. Very memorable for me, but such a fantastic experience for the pupils, too.



Visit us at Bett 2022 Stand SK50

Introduce your students to coding and enhance their science, technology, and maths curriculum through robotics.

#### Classroom Bundles



Clutter-Free Classrooms

The perfect solution for individual STEM classrooms or sharing between classes

#### STEM Labs



#### Complete STEM Lesson Plans

Free lesson plans and activities covering all aspects of STEM

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#### No Previous STEM Experience Required

Teacher CPD and Certifications give non-specialists the confidence to teach STEM

#### **VEXcode**



#### Powered by Scratch Blocks

VEXcode allows you to teach sequence, selection, iteration. variables and more

Contact eusales@vexrobotics.com to arrange an online demonstration or visit www.vex.com to find out more

#### Coding as Easy as 1-2-3!

VEX 123 is an interactive, programmable robot that takes Computer Science and Computational Thinking off of the screen and brings them to life.



#### STEM Starts Early

An affordable construction system that teaches the fundamentals of STEM through fun, hands on activities that help young students experience coding and engineering in a fun and positive way!



#### **Three Ways** to Code

Students can learn coding basics with the 123 robot's touch buttons, the VEX Coder. and VEXcode Blocks

#### Take Coding

Learn real programming away from screens by using the VEX Coder and physical Coder Cards

#### Grows with your off the Screen Student's Abilities

Unlock the full power and capabilities of your 123 robot with VEXcode 123 on Chromebooks, tablets, Mac and Windows

#### 123.vex.com



#### **Pre-Sorted** Storage

VEX GO Kits come ready to use in pre-sorted carrying case where everything has its own place

#### **VEX GO** Competition

Students put their skills to the test by going head to head in the classroom with the **VEX GO Competition** 

#### Colour-Coded **Pieces**

Pieces are colour coded to aid in identification, making it easier to follow build instructions

go.vex.com

#### INSIDE THIS SECTION



Help KS2 pupils write with greater depth through emotive language, from Sue Drury



Use Jarrett Lerner's EngiNerds novel as a launchpad to get kids excited about engineering



Quick tips to motivate young readers to not only pick up a book but to be able to understand it!



Welcome author Maz Evans into your classroom to empower pupils to write about the things they know and love

#### >> RECOMMENDED RESOURCES

#### PROMOTE ORACY

This beautiful set of discussion cards



from Plazoom is the perfect way to encourage children in KS2 to express their thoughts and opinions at the start of a new year - reflecting on past experiences, and considering future aspirations. Try it for free at bit.ly/PlazoomCards



## Meet the

**Emily Critchley** on how fiction can be a powerful tool in helping children through difficult times

rom a very young age I knew that I wanted to write. I filled my notepads with stories and poems, and employed my younger sister and her friends with the job of bringing my play scripts to life. "She'll be a writer, that one," my Year 3 teacher cheerfully told my parents. I can even clearly remember my first experience of writer's block. I was seven, and to end my story I needed to figure out a way of blocking the sun during the day. At last -after a tortured five minutes - the answer came: all the birds in the world would fly up and hover in front of the sun - perfect!

#### Fully immersed

I am fortunate to be able to combine being an author with working as a secondary school librarian. I run a creative writing club for Years 7 and 8 and I always tell my club members that writers are readers.

As for my own reading, I was lucky enough to grow up in a house with plenty of books, many of them children's books salvaged from my mother's own childhood; some still containing handmade library tickets with 1960s dates from when my mum played libraries.

At home, my dad would often read to us before bed: Stig of the Dump, The Lion the Witch and the Wardrobe, Milly-Milly-Mandy,

The Famous Five, Catweazle. Occasionally, he'd make up his own stories and encourage us to do the same. I can also vividly remember being read The Hobbit by my class teacher in Year 6. I loved the feeling of being fully immersed in another world over a number of weeks, and of returning to the characters at the end of each school day to see where they were on their quest.

Although I grew up in a small village, we had a local library and after I'd worked my way through the children's section, I moved on to the teen shelves - which consisted of the Sweet Valley High series and The Babysitter's Club. I loved those books even though they weren't literature with a capital L (far from it) and I try to remember this when helping

students in the library. As long as they are reading, that's what's important. We can build a love of literature by keeping a child enthused about reading; once they're interested, then you can begin to gradually introduce more challenging texts. I want young readers to experience that feeling of not being able to put a book down, of having to turn the page to find out what happens to a character they care about; the joy of losing yourself in another time and place.

Reading is a muscle that needs to be worked, and yet it should also be enjoyable and doesn't always have to be an upward trajectory. If a student has completed a more challenging book but then wants to take out a manga or a Wimpy Kid, that's fine. How can we say otherwise when our own reading can be so eclectic and dependent on our moods? As long as they have a book for class that is a more appropriate reading level, it's fine to take out a book for fun.

#### Difficult years

Although introverted and bookish, I was a happy, creative child. Unfortunately, everything changed for me when I entered Year 8 and was subjected to bullying. One girl attacked me physically and I was even allowed out of

class ten minutes

"Reading can help a child feel less alone, and to process their emotions"

earlier at the end of the day to avoid the bullies who followed me home from school. At that point I stopped writing stories and no longer enjoyed any of the activities I used to. I become withdrawn and extremely unhappy.

I don't believe it's any coincidence that the protagonists in both the books I've written for young people are being bullied at school. I always feel, when writing for children or teens, that I'm writing partly for them and partly for my younger self. I want to show myself, stuck in that awful time, that there is a way through. I also include humour in my books because I believe it is so important, even healing. Providing moments of comedy to the reader can offset against more serious themes, helping us to deal with and digest topics that might be

painful. My latest book does, after all, feature a large talking polar bear who has a habit of quoting Oscar Wilde, and who devours tinned sardines.

The importance of friendship, and of having one good friend, is another important topic for me. Having someone to speak up on your behalf and help you find the courage to realise that it's okay to talk about what's bothering you is a wonderful thing. I wish I'd had friends like that when I was being bullied. What I did have, though, was a teacher who noticed, listened and intervened. Just knowing I had someone who would take the time to listen and sympathise was hugely valuable to me at that time. It's amazing what important roles teachers can play in pupils' lives, far beyond classroom teaching.

#### The comfort of books

Although as a teen I read a lot of what I would now consider to be terrible books, I can see now that both reading and writing helped me through a difficult time. I read and re-read *Chicken Soup for the Teenage Soul* and those mini real-life stories and poems made me feel there was someone else who had felt as I did. Because of this, I believe it's important that children can not only access books that can be used as escapism, but that they can also find books in which they can see themselves and elements of their lives. Reading

It can also help them to process their emotions through a guise of a fictional

can help a child feel less alone.

character.
When
students have
a lot to cope
with outside of
school it makes
their achievements
even more inspiring,

and I feel determined to make sure I am doing the lives of young people justice when creating and writing about them. After all, the magic of books, whatever they're about, is that they can leave children – and us all – with a sense of hope. TP

THE BEAR WHO SAILED OCEAN ON AN ICEBERG

The Bear Who Sailed the Ocean on an Iceberg by Emily Critchley is out now in paperback (£7.99, Everything with Words).



Making a Difference - Supporting schools develop reading environments, writing skills and book talk

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- Accelerated readers
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### MOVING WORDS

Greater depth of writing isn't about throwing 'powerful' language at the page; we need to explore a more nuanced approach, says **Sue Drury** 

motive language refers to word choices that are intended to get an emotional reaction or arouse an emotion. It doesn't matter what it is – anxiety, anger, relief, urgency, joy, excitement and so on – as long as it has been evoked by the language used.

It is tempting – even traditional within a primary school setting – to link the idea of expressive, emotive writing with the concept of 'powerful' words. However, this can be misleading. After all, watchmakers and silversmiths rarely, if ever, require power tools to create accurate timepieces or fine jewellery. They tend to use delicate, precise implements.

In a similar vein, you should encourage your pupils to choose their words with precision rather than raw power as they seek to move their reader. Subtlety can often have more impact in evoking emotion than wild exaggeration.

#### **Emotional impact**

Of course, no one would deny the general importance of broadening children's

vocabulary. Writing emotively, however, is one area where it probably matters even more than most. After all, life tends not to be a straight choice between 'happy' and 'sad', 'calm' and 'panicked'. Instead, emotions are a spectrum – a sliding scale – and so it really helps to know as many words as possible between any two extremes.

Being able to use emotive words effectively requires the writer to be able to distinguish between different shades of emotion and, preferably, arrange them in order of intensity. It's well worth practising this skill regularly with simple word-ranking tasks like this one:

bit.ly/Plazoomsynonyms

#### The power of persuasion

You can find emotive language examples in almost every genre – but where it really comes into its own is in persuasive writing. From letters of complaint to promotional leaflets, you'll find plenty of emotive strategies, especially in advertisements. Given limited space or time, ads need to pack a powerful emotional punch with the minimum number of words.

Copywriters can agonise for ages over finding the best possible way of connecting with the reader's emotions using persuasive language, techniques and devices. Why not challenge your pupils to do the same, with the help of this text types resource pack:

bit.ly/PlazoomPersuade

#### Figuratively speaking

Pupils should be encouraged to use all language devices at their disposal in order to write emotively. Figurative

language such as similes, metaphors and personification can often convey a concept with such imaginative clarity that it leaves a profound impression on the reader. While

#### BUILD BRILLIANT VOCABULARIES NOW!

If you are looking for ways to close the vocab gap, take a look at Word Whoosh from Plazoom; an exciting collection of resource packs that will help pupils in years 1–6 to learn 144 ambitious tier 2 words in short, daily sessions – one word a week. Find out more at bit.ly/PlazoomWhoosh

this might not always be appropriate – in formal letters, for example – it can often be absolutely perfect for other types of text.

But what about hyperbole? Well, everyone else uses it, so there is no reason why pupils shouldn't, too. When promoting it as a form of emotive language, however, counsel caution. If the exaggeration is too blatant or extreme, it can have the opposite effect to the desired one, as the reader simply won't believe it – the set of worksheets at bit.ly/PlazoomHB will help children to strike a balance. (The same is true of exclamation marks, incidentally: one is enough and often too many!)

Finally, are you looking for other linguistic tricks to teach your class? Do you recognise the power of questions when it comes to engaging the reader? Can you imagine how effective rhetorical questions could be, given the right context? Then why not urge your pupils to use them?

With so many options to choose from, every young writer should be able to find some way of using words to connect with the feelings of their audience. And fortunately, they have you to guide them towards the effective use of these techniques and generally nurture them towards achieving their innate potential as a writer. How rewarding – and powerful – is that?



Sue Drury is literacy lead at Plazoom, the expert literacy resources website. Find more advice on the Plazoom blog.



@plazoomshop
plazoom.com/blog







DfE validated! (June 2021)

## Teach effective phonics

Resources to support Little Wandle Letters and Sounds Revised, a complete SSP programme created by Little Sutton Primary School and Wandle Learning Trust. Sign up for a briefing at Littlewandlelettersandsounds.org.uk.



Ensure no pupil falls behind with Keep-up Teacher's Guides and helpful lesson prompt cards!





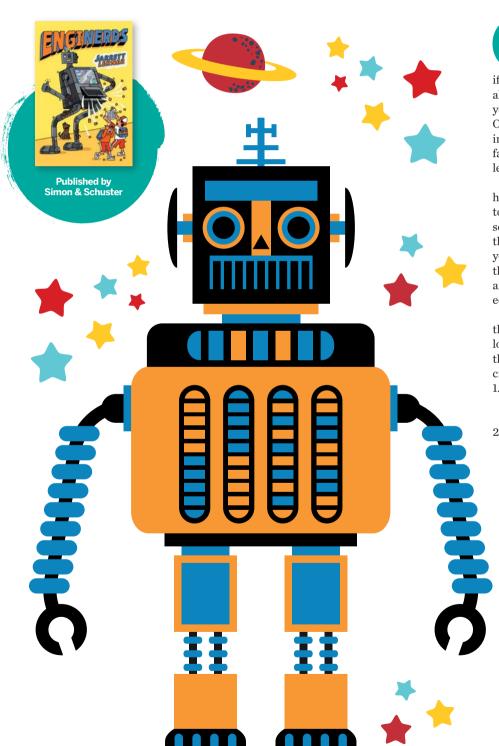




## EngiNerds

Help students soar to new creative heights by using this STEM-inspired novel as a launchpad

JARRETT LERNER

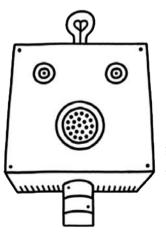


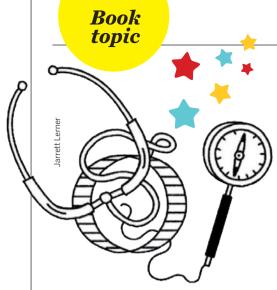
rowing up, I was rarely given a good reason why I should read my school-assigned books. Most of my teachers, if questioned about it, said something along the lines of, "Because kids your age read this book every year." Or, "Because this is a famous and important book." These reasons were far from persuasive. If anything, they left me more confused.

Why do you read? Surely you have lots of reasons. But I'm willing to bet that when you pick up a book, settle into a cozy spot, and dive into the pages, you do so in the hopes that you will be getting something out of the experience, whether it's diversion and distraction, information and edification, or whatever else.

My goal is always to make books that offer something - and hopefully lots of things - to kids. EngiNerds, the first novel in my trilogy, was created with two major goals in mind:

- 1. To prove to or confirm for kids that reading can be a thoroughly enjoyable activity;
- 2. To show kids how books can serve as sources of ideas and inspiration for their own creative journey, and that it's when we are creatively engaged that we do our very best learning.





The first goal was accomplished by conceiving and writing a fast-paced, action-packed, humour-filled story about a group of awesome kids battling a horde of farting robots. (Yes, you read that right: farting robots.) The second goal was a bit more involved, and achieving it requires your assistance as a teacher...

#### **SHARING THE BOOK**

EngiNerds is a book that begs to be read aloud. I put in a great deal of time and effort to capture the voice of a real, relatable kid narrator (his name is Kennedy, though he goes by Ken), and the book's humour comes through all the more strongly when there's a crowd to giggle

The story takes place over the course

along with.

of just a few days, and is broken up into dozens of relatively short (sometimes super short) chapters that often end on cliffhangers. This means that it's easy to read short sections of the book over days or weeks, depending on how much time you have in class, and you can break the story down for less enthusiastic readers.

I've been fortunate enough to read kids the opening chapters of EngiNerds hundreds of times, in groups as small as five and as large as 500. engaged that we Although pupils usually love the fast do our very best pace and want to hear more, that energy the momentum that the story has built up

#### **CREATIVE WRITING ACTIVITIES**

#### **Predicting**

"It's when we

are creatively

learning"

Have you just stopped your read-aloud of *EngiNerds* in the middle of a particularly tense scene? Do you have a classroom full of kids bouncing on the edges of their seats, crying out for just one more chapter? Well, instead of telling them

> what comes next, have them finish writing the scene.

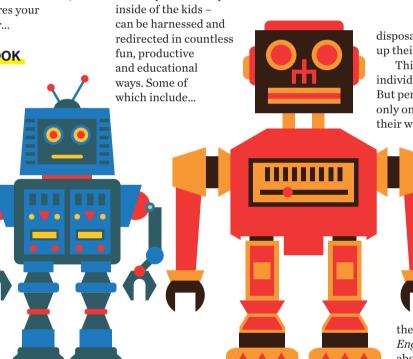
Before letting them loose, it may be helpful to organise some information together as a group. Who are the characters involved? What is the setting? What is the conflict or problem? This will help kids grasp the ingredients at their

disposal before they begin to cook up their own solutions.

This activity can be done individually, in pairs, or in groups. But perhaps the best learning begins only once pupils have completed their work. Have children volunteer

> to read their creations aloud, then compare them. Were they all different? How so? Were any similar? In what ways? What specific elements or details of the book led kids down a similar storytelling path?

This work and the resulting discussion will help uncover the careful construction of EngiNerds, and by thinking about how authors craft



#### **Beyond Writing**

#### DRAW A ROBOT

In addition to my fiction, I make activity books, and have a collection of free activities available on my website (jarrettlerner.com). You can use my 'How to draw a robot' activity along with EngiNerds in a variety of ways. Once pupils have mastered the basic shapes and lines needed to draw a robot, have them draw what they think the robots in EngiNerds look like, or have them draw the robot they created in the activity above.

#### **FINISH THIS COMIC**

Robots are uniquely exciting characters to tell stories about. They exist in the gray area between human and inanimate object, and are constantly evolving in the real world. Use the robot-related 'Finish this comic!' activities linked above to spark ideas about robot-to-robot and/or robot-to-person interactions and stories. If children need more than just the blank panels provided on the activity sheet, have them jump over to a new sheet of paper. (Or print off

some of my free blank comic book pages at jarrettlerner.com).

#### EXPLORE THE JUNK DRAWER

The EngiNerds are wildly crafty, clever, and creative. They borrow their parents' vacuum cleaners and use them to build hovercrafts. They make catapults out of chopsticks and rubber bands and use them to save their town. Have children explore their junk drawers and/or recycling bins and see what they can create. You can provide tape, rubber bands, glue, or anything else you think it may be helpful for everyone to have access to.

scenes in particular and stories at large using tools and techniques such as, say, foreshadowing, it will help kids be more intentional in their own writing.

#### Remixing

EngiNerds begins simply, with Ken finding a box on his doorstep. The box is a mysterious one. It's got his name on it, but that's all – no information about who it's from or what's inside.

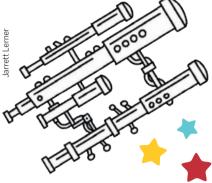
This situation is absolutely packed with storytelling potential. It takes a common, relatable experience – pretty much everyone, young and old, has opened their front door and found a package sitting there – but, by omitting certain key information, infuses it with infinite possibilities. Anyone could have sent that box to Ken. And anything could be waiting inside of it.

First, have pupils decide who their main character will be. Themselves? A made-up kid? An animal? They can even use my narrator, Ken. Then have them craft their own stories using the mysterious box premise.

It may be helpful to list the questions that the mysterious box situation presents, and think back to how and when they were answered in *EngiNerds*. For instance: who sent the box? Why? What's inside? Does it make the main character happy? Sad?

Scared? Excited? Confused? All of the above? What does the main character do once they discover what's in the box? What sort of problem might the contents of the box create? What will the main character do to solve that problem?

The children can actually write their stories,



or simply outline them.

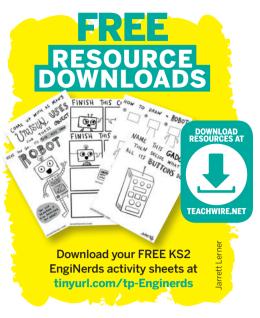
No matter what, the work will help them make discoveries about narrative structure and help them strengthen their own writing.

#### **Robot-making**

While the robots in *EngiNerds* malfunction rather spectacularly (that is, *flatulently*), they were designed, built, and distributed for a good reason. Ask kids to identify a problem in the world, preferably one that is important to them. These problems can be big, small, or any size in between. Could a robot (or some similar machine) help solve this problem, or at least alleviate some of its consequences?

Have the kids write about their robot. Pose some questions before they begin to make sure their descriptions are thorough. What size will the robot

be? What will it be made out of? What will it do? What are some ways that the robot could malfunction? What could be done to prevent that from happening?



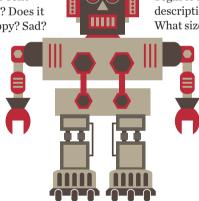
Pupils' robots can be plausible or fanciful. Regardless, it will help them explore the ways in which their creativity can help them problem solve, and the ways in which writing can help them clearly express their thinking.

You can add a research element to this activity, too, by having the children look into real-world uses of robots. Have them identify where they are being used and what problems they are solving.



Author-illustrator Jarrett Lerner is the creator of the EngiNerds series of Middle Grade novels, Geeger the Robot chapter books, Give

This Book a Title and Give This Book a Cover activity books, Hunger Heroes graphic novels, and more, all of which are published by Simon & Schuster. Jarrett can be found at jarrettlerner.com and on Twitter and Instagram @Jarrett\_Lerner



This activity can also be done by giving everyone in class access to the same materials, and then comparing what people make. Either approach can be done individually, in pairs, in groups, or even as a whole class.

Truly any materials or items can be used, but some great and super fun ones include: plastic utensils, toothpicks or wood skewers (not recommended for the youngest creators!), packing peanuts, paper clips of all sizes, rulers, dental floss, wooden clothespins, cardboard of varying size and thickness, chopsticks, buttons, and plastic cups.

#### REPURPOSE EVERYDAY ITEMS

Encourage kids to practise thinking like an EngiNerd. Gather some everyday objects and, after identifying the item's usual, typical use, have kids come up with as many alternate uses they can. For instance: a ruler is used to measure – but could double as a backscratcher! This activity can easily, naturally be combined with the one above. For instance: tape a plastic fork onto the end of your ruler-turned-backscratcher, and it's longer and more effective!

If you can't gather everyday objects, or you wish to use objects that aren't easily available or are implausible to

bring into the classroom, draw them for the class, or print out pictures of them online. You can also use my activity sheet based on this concept (also linked above).

#### INVENT A GADGET

The EngiNerds love their gadgets, and as the series progresses, those gadgets play an increasingly important role. Use the 'Name this gadget' activity sheet to get kids imagining gadgets of their very own. If a pupil gets particularly excited about their creation, encourage them to write a story or make a comic in which the gadget plays a part.

**REASONS TO TRY...** 

#### **Extraordinary Worlds...**

Find out how to bring the whole school community together in shared immersive learning – at your fingertips

#### WHOLE-SCHOOL **EXPERIENCE**

There's something joyous and purposeful about a day in which every class in the school works to a common end. With suggested timetables, together with teacher notes, assembly plans, flagship challenges and more, you'll find yourselves spoiled for choice.

#### **IMMERSIVE ENGAGEMENT**

Pupils actively help our intrepid explorer Ady as he tackles challenges, from finding the treasure hidden on Cloud Island, to solving The Mystery of the Missing Football Boots, cracking a Viking conundrum, and rescuing astronauts stranded in orbit around Mars!



#### LED BY THE **CURRICULUM**

All the activities in our Extraordinary Worlds have been developed to support both the National Curriculum and the Curriculum for Excellence – offering teachers unparalleled opportunities to engage their pupils in creative curriculum learning.

#### VALUE FOR MONEY

A whole day of activity for every class from Reception to Year 6, for less than 60p per child? Sounds too good to be true, doesn't it? But with a two-form entry school, that's all Extraordinary Worlds costs, meaning that these resources provide amazing value for money!

Contact: ascreatives connect.com info@ascreatives connect.com 0151 708 8886

#### At a glance

- You can find out more about the packages, view sample resources and feedback, and make direct purchases at ascreativesconnect.com
- There's no need for painful planning everything is packaged by year group to provide a clear, concise and comfortable user journey.
- Each package features immersive approaches developed by As Creatives through more than 12 years working directly in schools (and with more than a million pupils so far!).

#### **REASONS TO TRY...** Mini-Maths whole-class pack

Find out how Mini-Maths can make teaching early numeracy child's play

#### SUBITISING SKILLS

Young children always enjoy the physical manipulation of objects. Mini-Maths resources offer numerous opportunities for educators to develop fun, subitising activities that encourage children to be engaged and excited about mathematics. These natural manipulatives embed fluency in number understanding through visual and sensory learning.

#### CATCH-UP FOR ALL

Mini-Maths caters for all abilities, allowing children to work to their current level of understanding, from initial play with the counters, spinners and chalkboards to developing fine motor and prewriting skills. Multiplication, division, addition, whole-part models and place value are also covered, alongside lots more. The resources



encourage cooperative learning and develop extended language.

#### **CURRICULUM-BASED LEARNING**

Mini-Maths comes with a comprehensive learning manual and access to videos from education consultants and teacher training tutors to assist practitioners and teachers with example learning activities. Mini-Maths is compatible with the whole school Versa-Tile Maths System, offering maths learning progression

from lower foundation to the start of secondary school.

#### **DURABLE AND AFFORDABLE**

Our resources are made from natural, durable UK-grown wood from our own sustainable woodland management projects. No plastic, resins or rubber from far away lands, and no nasty, harmful, toxic chemical treatments on the wood - just natural, beautiful and durable.

**Contact:** Email queries @outdoor classrooms.co.uk Visit outdoor classrooms.co.uk Watch at tinyurl. com/tp-minimaths



#### At a glance

- · Mini-Maths resources are both indoor and outdoor provision friendly.
- This is a multi-ability, adaptable, flexible and wide-ranging natural maths resource.
- Mini-Maths allows children of all abilities to have fun and catch up with their maths learning.



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## LOVE AND UNDERSTANDING

Why simply encouraging reading for pleasure isn't enough, and how you can develop comprehension skills long-term

#### CHRISTINE CHEN AND LINDSAY PICKTON

ncouraging others to enjoy something we love is a normal human behaviour. It might be a type of food, or films by a certain director, or walks in the countryside... but it gets more complicated when we think about sharing a love of skill-based activities like, say, cycling or swimming. What if your friend can't swim or cycle? Maybe they can, but not well enough to be confident. What if they've previously had a bad experience? Maybe they can't see the point of making all that effort to learn how, because the activity doesn't appeal to them. Any one of these things will get in the way of your attempts to convert your friend.

Inspiring children to read for pleasure must include an awareness of these same factors – and (as with swimming and cycling) being able to read isn't enough.

Skill-building to the point of confidence – from decoding and then automaticity through to fluency – has to be part of the process. But so must motivation: the appeal of the activity inspires the hard work that is required to master the skills.

Children who grow up in a cycling family - for whom the child-seat on the back of a bike is a place of comfort and fun, and quality bicycles are the norm - are more likely to learn to ride early than a child with little-to-no experience of cycling and little-to-no hope of ever owning a nice bike. Similarly, pre-readers who are read to frequently, and are surrounded by adults and/or older children who clearly read often, seem to pick up reading skills more readily. And having access to gorgeous books full of mesmerising stories is like

having access to the most beautiful, well-maintained swimming facilities: it doesn't replace learning the skills, but it may well help with the drive and desire to do so.

In school, we can work on building the appeal, and so inspire the hard work required: availability of appealing books, lots of immersive story-time, and models of reading for pleasure. This latter can be crucial in showing children from sparse-reading homes that reading isn't just something hard that school wants them to do. And it can be achieved in simple, time-efficient ways: we have encountered an NOT. for example, who left her chunky commute-read on her desk every day, and her class became mesmerised and then motivated by the progress of her bookmark through the novel's many pages!

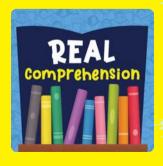
#### Quick ideas for reading confidence

- In all year groups, listen to children read and be analytical about any decoding errors. Very often there is a pattern (e.g. certain sounds at the ends of words, or adjacent consonants in the middle of words, or getting lost in polysyllabic words), and this can be addressed specifically and efficiently.
- Check their automaticity with high-frequency words in context. It is impossible to read fluently if you have to sound out half the words on the page!
- Watch out for poor self-correction. When children regularly select the wrong sound for a given grapheme, this suggests they either aren't meaning-monitoring as they read, or that gaps in their vocabulary mean they don't actually recognise the word they are reading.
- Sometimes, model fluency with slightly exaggerated prosody when reading aloud; emphasise the micro-pauses that occur between

#### **FREE COMPREHENSION UNITS**

Download your free sample of Real Comprehension from Plazoom; a powerful, whole-school programme developed by Christine Chen and Lindsay Pickton, with fellow literacy experts Rachel Clarke and Ruth Baker-Leask. All resources are based on original texts from beloved authors









phrases even where there isn't a comma. ("When he was dressed, he went down the hall into the kitchen," becomes, "When he was dressed – he went down the hall – into the kitchen.").

- Repeat (or echo) reading

   where you read a sentence
  and then ask the child to read
  the same sentence and try to
  imitate your intonation can
  help with fluency.
- Repeated bouts of choral reading, with feedback between each read through, have been shown to improve fluency (e.g. Patel and Laud, 2007). We have found choral reading of poetry and song lyrics to be very helpful, as the rhythms of verse explicitly support prosody.
- When reading to children, and when choral reading, keep focus on comprehension (and engagement high) with 'micro-drama'. For example, "Show me [this character's] face right now,"; "What might they be doing with their eyes at this moment?" and so on.
- Encourage visualisation without pictures by demonstrating positional relationships physically, using your hands or simple props: "So, Peter Rabbit is

in a wheelbarrow here; Mr McGregor is here, but facing away; the door out of the garden is here. So what must Peter do to escape?"

• Background knowledge is key in comprehension, whether children are listening or reading for themselves. Many 'slow progress' readers lack breadth of life experiences and the general (and genre) knowledge acquired from bedtime stories. When preparing a text, pre-empt as many potential prior-knowledge pitfalls as possible, and have pictures or explanations ready. Google is a real help here, but try not to leave it until the session!

# Quick ideas for motivating reading

- Think about ways of communicating tacitly that reading (for pleasure and purpose) is something that people do. The impact of a sports coach, for example, simply carrying a novel (or similar) that is his or her own, could potentially be profound for some children.
- Make links with children's interests, such as popular comics, films, or hobbies. This can give pupils a prior-knowledge anchor, when they might otherwise feel adrift.

Consider what the library and

# WHAT IF YOU DON'T ENJOY READING?

Not every primary practitioner loves reading, but it helps to be reasonably well-read (in the realm of children's literature) in order to do the job! Some very quick strategies for colleagues in this position:

- Listen to audio books while commuting, or even when you go to bed!
- Know that it may take five, 10, or even 50 pages for a book to seize you, so be prepared to push through that initial resistance. And share that experience with the children.
  - Always, always seek recommendations from colleagues and friends, and consider starting a book club amongst fellow teachers. This doesn't have to be time-consuming; it may just be a formalised way of sharing and encouraging ("It doesn't get good until the fourth chapter, but then it grabs you!").
- Also try books that have stood the test of time, as most have done so for good reason.
- Regard reading as part of your professional development (it will even improve your own writing, and therefore your ability to model-write) and set yourself targets!

book areas 'say' to children about the value of reading (imagine a dirty, shabby swimming pool, or a rusty bike with a puncture). A poorly maintained book area may be worse than no book area at all.

• Many schools now give young readers a book for the development of word reading, and one for parents or carers to read to them (the latter may be swapped for an audiobook, as appropriate). This practice can be extended to all primary-age children: try giving pupils one teacher-directed book, and one at a higher level – perhaps an audiobook. We can all listen at a level higher than we can read for ourselves, making it an ideal entry point to stories. **TP** 



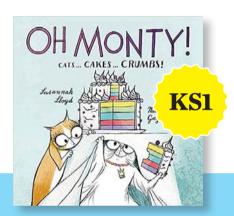
Christine Chen and Lindsay Pickton are primary education advisors (primaryeduca-

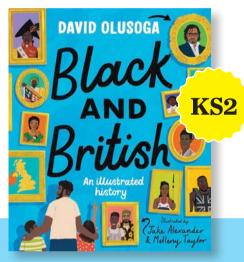


# Book CIUB

We review five new titles that your class will love







Microbe Wars by Gill Arbuthnott, ill Marianna Madriz

(£14.99 HB, Templar Books)

Welcome to the world of microbes. Far from the persistently nasty, sneeze-inducing reputation they may have (especially thanks to a certain pandemic!), microbes are actually mostly harmless, and can even be helpful. This is the story author, biology graduate and teacher Gill Arbuthnott is trying to tell with this history of germs, viruses, antibiotics, disinfectants, and more. Each beautifully illustrated spread introduces a new topic, from expected culprits like The Black Death, the immune system, and of course Covid-19, to why some microbes taste nice, and how wallaby milk works better than penicillin. A great start for a KS2 science lesson, or as a fun (and relevant) topic for history, this non-fiction adventure will keep you interested throughout.

Oh, Monty! by Susannah Lloyd, ill. Nici Gregory

(£6.99. Pavillion)

If you're in need of a giggle (who isn't, especially during these trying times!?) this effervescent picturebook is bound to put a smile on your face. Ideal for sharing with little ones, the tale of pesky cat Monty and his hapless sidekick Tiddles is an endearing look at the love we have for our pets, and what we let them get away with! A straightforward narrative with delightful, full-page illustrations, this age-old story of mistaken blame puts a joyous spin on a rather naughty animal. Join Monty and Tiddles in trying desperately to look after their human's beloved cake, only to be foiled by their own curiosity... A perfect addition to storytime, kids (and grown-ups!) are bound to fall in love with Monty right away, despite his sneaky ways. I did.

Black and British – an illustrated history

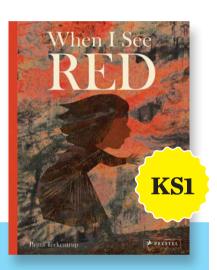
by David Olusoga, ill. Jake Alexander and Melleny Taylor

(£16.99 HB, Macmillan)

'A few years ago I wrote a book for grown-ups about Black British History. Since I finished writing that book, young people and their parents have been asking me to write a version for children. That is why I have written this book. It is the book I wish I had been given at school.' So begins the introduction to David Olusoga's illustrated history of what it means to be Black and British. Stretching across time from the Roman Empire to modern-day UK, it is an invaluable and enjoyable read for any classroom library. Find out about the essential role Black people played in Britain's Industrial Revolution and its problematic reliance on the slave trade, and how a journalist originally from the West Indies created one of Britain's most beloved celebrations of culture - The Notting Hill Carnival. Whatever period of history you're teaching, this book is likely to be an amazing resource, and a joy to share.







Bird's Eye View by Frann Preston-Gannon

(£6.99, Templar Books)

When I See Red by Britta Teckentrup (£10.99 HB, Prestel)

"What are people?" This is a question Little Bird asks her mama, and the enquiry that sparks her journey to find out about humanity. No doubt you've been asked similar questions by children before; but this time there's a book to help you find the answer. At the very least you'll be able to share an endearing and eye-opening story about the differences between people, and the things that bring us all together. Stunningly illustrated by the author, this book is perfect for discussions about kindness, and for any of your children that enjoy following the pictures as you read. Join Little Bird as she soars through the skies over cities and forests, oceans and mountains, and rediscover the contradictionary nature of what it means to be human.

Anger, rage, frustration... we all know what it's like to see red. But for our very young people, these feelings can be nothing short of overwhelming and terrifying, especially if they get told off for their tantrums. In Teckentrup's artistic book, we see a realistic vet poetic view of what it means to be truly angry as a child, including how we can sometimes find the positive in our fury. Stunning full-page paintings compliment a flowing, rhyming verse in the first person, from the point of view of an angry girl. Whether you're teaching your class about how to handle their emotions and what they mean, or simply exploring the correlation between the words and images we use and how we feel (why is red always angry?), this is a beautiful book to have on your shelf. It might also be a calming influence for grown ups on those 'just-too-much' days.

# Meet the **AUTHOP**

BRITTA TECKENTRUP ON THE POSITIVE SIDE OF ANGER, AND WHY IT CAN BE SO HARD TO ACCEPT...



What was the inspiration behind When I See Red? The book was triggered by some personal feelings and also by the #MeToo.

#BlackLivesMatter and #FridaysForFuture movements. as I was trying to understand rage, fury and anger a little better. I felt a need to highlight the positive aspects of anger and rage. They are too often suppressed and seen as negative and primitive emotions – especially in girls. (That's why I have chosen a girl as my main character.) But anger can also act as a warning signal when somebody is crossing our borders or an injustice is done to us. We can react to an unjust situation with sadness or anger - but while sadness makes us powerless, anger can empower us to change and move forward if used in a healthy and controlled way.

# Why did you choose rhyme to articulate the feelings of anger?

It was a subconscious decision. I started to collect words that sounded like a wild storm and described feelings of anger and rage at the same time. This kind of automatically led me to the rhyming text. I really enjoyed reading it out loud while writing it.

# How would you like teachers to use your book in the classroom?

I wanted to write a book that could maybe act as affirmation and an opening to talk about anger and rage, as they can be so difficult to articulate – especially for children. Maybe the book can help to make sense of these sometimes-overwhelming feelings. It could start a conversation – that it is ok to feel angry at times, and that anger isn't all negative and can also be used in a good way...

When I See Red by Britta Teckentrup is out now (£10.99 HB, Prestel).

# UTTOR IN YOUR SSROOM



Bring author Maz Evans directly into your classroom via a free podcast and downloadable resources...



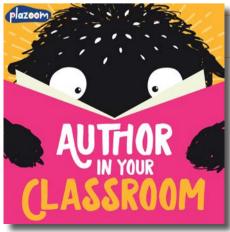
ancy a virtual visit from a real author? Luckily for you, Maz Evans, bestselling author of Who Let the Gods Out? and Vi Spy, is ready and waiting to share her thoughts, ideas and inspirations with your budding wordsmiths via our free literacy podcast. The experience doesn't end there, either; we've created some amazing free teaching resources to download at plazoom.com, so you can continue your reading and writing adventure in the classroom.

There really is something fun about evil characters, isn't there? Especially when they're mashed together in a story stew of heroes, villains, humorous anecdotes, and perhaps even a bomb or two. Well, that's the world of Vi Spy, Maz's latest book series, following Violet and her ex-superspy mum, Easter.

In this episode of the podcast, Maz talks us through what writing books is really like (and why it requires a lot of biscuits), and how sometimes, when you're stuck for ideas, thinking about villainous characters can get the creative juices flowing. She also shares ideas for how your pupils can develop their own stories, based on the things they know about, and the things they love...







# HOW TO USE THE PODCAST



Search for 'Author in your Classroom' podcast wherever you listen to podcasts



Play it in your classroom in one go, or in shorter chunks



Pause the podcast to talk about the points being raised, using our teaching notes

# THREE THINGS KIDS WILL LEARN FROM THE PODCAST

# 1 WRITE WHAT YOU KNOW

Usually, when you're writing your first story, it's easiest to pick a subject you already know about. Maz did this with her first book, *Who Let the Gods Out?*, using her love of Greek mythology and her own personal experience of dementia as her starting points. So, what do you love? And what do you know a little bit about? Mash them together and off you go!

### 2 EDITING IS ESSENTIAL

When it comes to creating a book or a story, we often assume that the biggest part is the literal writing it down bit. Not so, says Maz. Although she may be able to write a book in a month, it's the subsequent editing that takes the biggest chunk of time – often taking six to nine months. Maz explains: "I would rather run around Picadilly Circus with my knickers on my head

than let anyone see the first draft!" So, there you have it. Your first attempt doesn't have to

be perfect.



# 3 WHAT IF I DON'T LIKE IT?

Not everyone enjoys writing... even writers, some of the time! A lot of that feeling can come from thinking we're incapable of thinking up a story. But everyone is creative, insists Maz, and as long as you have these five essential elements, you're on your way: a character, what they want, an obstacle, a solution, and whether they get what they want or not in the end. "That's every story in the world," Maz says, but it's the ingredients and how you put them together that make them all different.

# **PREVIOUS EPISODES**



### PHIL EARLE.

author of When the Sky Falls, discusses the inspiration that can come from stories that we have heard or been told, often about things that friends and family have experienced. Download the teaching resources to support children in discussing stories that they may have heard from friends or families and plan their own writing based on them.



# BALI RAI,

author of *Now or Never* (part of Scholastic's brilliant 'Voices' series) has some powerful things to say about the responsibility involved in telling true stories from history – especially from a perspective that hasn't been heard before. Download the teaching resources to help pupils write their own historical tale.





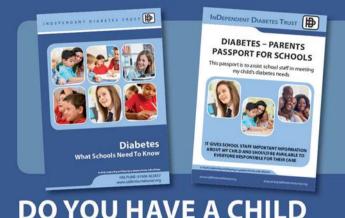
To accompany the podcast, teaching experts at Plazoom have created free resources that you can use to develop your pupils' writing. The teaching pack includes teacher notes, a book extract, a PowerPoint, planning sheets and beautifully designed elements for a working wall display.

In this teaching sequence, children will have the chance to write stories of their own based on things they know and love, and a character that they will design. They will also explore how they can make scenes within their stories more exciting, after listening to Maz's advice about the editing process.

DOWNLOAD THEM AT TINYURL.COM/ AIYC-MAZ







# DO YOU HAVE A CHILD IN YOUR CLASS WITH DIABETES?

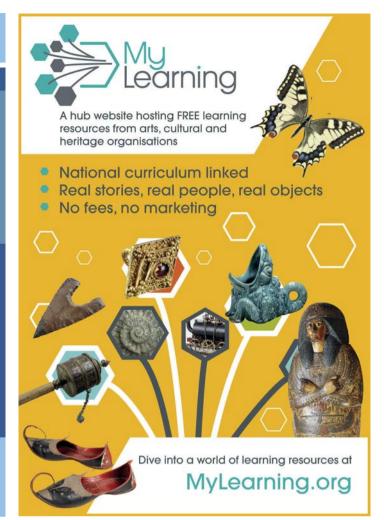
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# English



# **WHAT**

- How to create expanded noun phrases
- How to apply both subordinating and coordinating conjunctions to their work
- How to join words and clauses
- How to use commas in lists when using more than one adjective

# **Build descriptive** sentences with graphic novels



Rather than banning comics. use them to help inspire and develop writing skills, says

# **Richard Ruddick**



We've all fallen into the trap of asking a child to improve the detail in their writing or extend their sentences, only for them to say they don't know how. Using pages or images from graphic novels, comics and manga, you can empower your students and provide them with the support they need to create more powerful writing. Too often people are afraid to utilise these mediums, but children love the opportunity to use a visual prompt bursting with life.



Giving children an opportunity to explore the page or panels of text you have chosen is vital. They will need time to look at the details and events



taking place. Make sure you choose a page that suits your task; it needs to be visually appealing but some can be too busy for readers. Having a small group or class discussion about what you can see and what is happening will help them to feel confident about the text and prepare them for the writing to come. Using imagery in this manner can be very empowering for writers but it can also be distracting, so giving them the chance to ask questions and enquire is essential.

# **MAIN LESSON**

# 1 DISCUSSING AND **OBSERVING**

After giving the children a chance to explore the text you should start drawing their attention to certain panels, or, if you are using a single image then certain points of interest. Start to get them to offer ideas about what they have seen and note down their observations. After listing several key points or important nouns, get pupils to come up with adjectives to describe them. For example, if you had an image of a butterfly, how would they describe the butterfly? Try to get several

adjectives for each picture they won't need to use all of them necessarily, but having options will help those less confident writers or the ones who always say they can't think of anything.

### 2 CREATING **SENTENCES**

Now that the class has a list of adjectives to go with all of their observations, they can start turning them into sentences. You can begin by focusing on simple sentences that utilise the adjectives listed. If we look at the example of the butterfly, a first sentence might look like this:

The blue butterfly flew away.



Promote the concept of increasing detail in the sentence by using multiple adjectives. This will also lead onto the idea of using commas in a list. Modelling the process, the sentence may look like this after the second attempt:

The beautiful, blue butterfly flew away.

The magical, beautiful, blue butterfly flew away.

Children can use the list created earlier to help with this part, which will also enable all pupils to participate. Encourage those who are confident enough to use their own adjectives or ideas where appropriate.

At this stage, everyone in the lesson has also been exposed to the writing process and can see that it takes more than one attempt to create their best work. Hopefully this will ease the fear of expressing their ideas.

## 3 EXTENDING THE **SENTENCES**

After creating the descriptive sentences, you can start to look at the concept of extending them. You could choose to focus on one or two given conjunctions such as 'because' or 'but', or if you feel your class are ready for the challenge, you could provide them with a word bank that contains multiple conjunctions from which they need to choose appropriately.

Model an example of how to do this on the board to ensure all your pupils are aware of how it works. Using the butterfly example again, the sentence might look like this now:

The beautiful, blue butterfly flew away because it saw one of its friends.

The magical, beautiful, blue butterfly flew away when a dog came near.

The beautiful, blue butterfly flew away and went home.

The children may struggle to add the extra information after the conjunction, and if this is the case, working collaboratively or using whiteboards to help with their ideas may be required. The focus should be on using an appropriate conjunction, so focusing on a simple one such as 'because' could help the children who are finding it difficult or are less confident to experiment.

Richard Ruddick is a Year 6 teacher at a junior school in Norfolk. He aims to engage and develop pupils English skills using comics and graphic novels.

- Give the class a word bank of subordinating and coordinating conjunctions and ask them to create a sentence that uses each one. This will test their ability to check their work and ensure it makes sense. You could use more than one image or page for this, as they may need a range of imagery in order to create coherent and correct sentences. You might also have had enough of reading about the butterfly!
- Ask the children to create a small and coherent paragraph using their sentences. If you are using a whole comic page, then this could be a sentence for each panel that they link together to create a narrative. If you are using a single image, they could create a sentence for each noun in the image and join them together. Anything that promotes the idea of continuing writing is kev here.

# USEFUL

- What nouns can you identify in the image(s)?
- What do you think will happen next?
- Why do you think that will happen?
- How could we describe that?



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# MFL, French



# WHAT THEY'LL I FARN

- Saying what the weather is like as part of the daily routine
- Techniques including miming, songs and games to memorise new vocabulary
- Practising their listening and writing skills in French
- Using geography to describe the weather in different places

# What's the weather like today, class?



Help KS2 pupils navigate talking about the weather confidently in French, with

**Dr Amanda Barton** 



@amandabook2

There's nothing we love more in the UK than talking about the weather, and as a teacher, if you make it to lunch without having discussed the topic at least five times, you're doing pretty well. The upside of this is that it's an ideal conversation to fit into your daily classroom routine, and therefore a great way to embed modern foreign languages (MFL).

Each morning, ask the children for the day, date and weather in your chosen MFL – the activities here are in French but they work for any language. You can review the weather after morning break or lunch, giving pupils lots of opportunities to practise.



# START HERE

Tell the children you want to see how good their memories are. Ask them in English what the weather is like today, what it was like yesterday, the day



before that, last July, in autumn, at the weekend, at Christmas, and so on. This should give you a good range of weather phrases.

Explain that you're going to add an extra challenge to the morning routine. Can the class work out what it is? Say the day, date and then the weather in French. Ask what their new challenge will be and if anyone can translate the weather phrase into English.

# **MAIN LESSON**

### 1 SPEAK

Introduce the question that you're going to use in the daily challenge - 'Quel temps fait-il?' Write it up on the board and explore what each of the words means in English (the literal translation is 'What weather is it making?'). Ask if the word 'temps' reminds them of an English word - making a connection with 'temperature' might help children to remember the meaning. Read the question out loud, breaking it up into individual words, and ask pupils to repeat after you. Say the words quietly, loudly, slowly and quickly, and ask one half of the class and

individual pupils to repeat. Remove the written question, one word at a time, once the children are confident with it.

Practise the first four weather phrases, all of which use the construction 'Il fait': 'il fait froid',' 'il fait chaud', 'il fait beau' and 'il fait du vent'. Ask the children to repeat each phrase several times while miming the weather condition. Next, say a weather phrase and ask the class to mime what you're saying, then reverse it – you mime the action, or ask individual children to mime, and the class says the phrase.

Reinforce the phrases with a song, accompanied by the actions, to the tune of Frère Jacques. Start by singing the first phrase, and



ask pupils to repeat. Then split the class in half, with one half echoing the other:

Il fait beau, il fait beau Il fait chaud, il fait chaud Il fait du vent, il fait du vent Il fait froid, il fait froid

### 2 REPEAT

Introduce the next weather phrases: 'il pleut', 'il neige', and the most difficult one to pronounce - 'il y a du brouillard'. Practise pronunciation through repetition as above. Pretend to build a snowman to demonstrate 'il neige', and draw out the pronunciation of 'brouillard' while you mime trying to find your way through fog. Go back to the first four phrases and practise

all of them in random order, varying the repetition as outlined above.

On an A4 piece of card or paper, ask the children to write out the seven weather phrases - spaced out around the page - and do seven drawings to match. They can then cut these out to make fourteen playing cards. If you are a bit low on time, you can download templates for the cards at tinyurl.com/ tp-FrenchWeatherGame

Now play 'Montrez-moi'. Ask the children in French to show you their corresponding picture when you call out a weather phrase. Then get the children to shuffle their cards and pass them to a partner who has to try and match up the pictures and phrases

to create seven sets. Pupils can take turns shuffling and sorting the cards.

# 3 PLAY

Play a 'find the pairs' game. With their partner, ask one child to spread their cards, face down, on the table. Next, encourage pupils to take it in turns to turn over two cards, and when they find a picture and text that match, they win the cards. The game can be made more difficult by using both children's sets of cards at the same time.

Ask pupils to stick the cards in their books, matching pictures and text.

Finally, explain to the children that they will be forecasting the weather for the following week. Under the title 'Quel temps fait-il?', get pupils to list each day of the week in their books and, as a whole class, enter today's weather as a model. Then they can individually write their forecasts next to each of the remaining days. Give a prize to the child who has the most accurate weather forecast when you check them in a week's time, but don't forget to keep a record yourself!

Dr Amanda Barton is a freelance writer and educational consultant who has taught MFL in primary and secondary schools. She is co-author of Teaching Primary French and **Teaching Primary Spanish** (Bloomsbury).

Ask the children what they think of different types of weather to practise opinion phrases such as 'C'est super/bon/merveilleux/ génial/terrible/mal/pas mal'. In pairs, get pupils to prepare a weather forecast roleplay, which they can then present to the rest of the class. Give them a map of the UK or France so that they can describe the weather in different cities using one of the phrases they've learned with 'à', e.g. 'à Manchester il pleut'. They must use their knowledge of geography to show the rest of the class where the cities are on the map. At the end of the role play, each pair can ask the class a question to test whether they've been listening: 'Quel temps fait-il à Paris?



sheet and playing cards template at tinyurl.com/ tp-FrenchWeatherGame

# USEFUL **QUESTIONS**

- Can you find some additional weather vocabulary including:
- It's cloudy
- It's freezing
- It's stormy
- Can you find out what the weather is like in French-speaking countries such as Canada, Belgium, Madagascar and Guadeloupe, and find them on a map?



# **WHAT THEY'LL**

- To identify three ways in which Jewish people might celebrate Tu B'Shvat
- Understand how following the idea of 'tikkun olam' can make a real difference to how a Jewish person might live
- Reflect on why the festival of Tu B'Shvat might be becoming more important for Jewish people

# What does Tu B'Shvat mean to Jewish people?



Explore the Jewish 'birthday of the trees' and make links to caring for our world with

# **Adam Robertson**



Tu B'Shyat is an annual Jewish festival held this year on 16 January. Originally a minor celebration, it has recently grown in importance within the Jewish community. In this lesson pupils will investigate what happens during the festival and a key story that underpins it. From this they will consider the concept of 'tikkun olam' and how Jewish people try to mend the world. The learning here will enable pupils to reflect on how a particular religious community views the natural world and our relationship with it.



Begin by asking children to reflect on the importance of trees. Can they make a list or mind map of as many ways as possible that trees help humanity and the



planet? Elicit ideas such as fruits, seeds, wood for construction and furniture, taking in carbon dioxide, and providing shelter and habitats for animals, among others. Ask pupils to consider how long trees take to grow, and what care they might need. Next, show pupils a clip introducing Tu B'Shvat, at tinyurl.com/tp-TuBishvat101 Can the pupils identify what Jewish people might do to mark this festival?

# **MAIN LESSON**

# 1 A STORY FROM **TU B'SHVAT**

Explain to pupils that many Jewish people will tell a story connected to this festival. The story comes from the Talmud, a collection of Jewish laws and stories. This story concerns Honi the Circle-maker. Play this version of the story on Vimeo: tinyurl.com/ tp-HonyFullCircle Ask the pupils:

- What was unusual about the way that Honi spoke to G-d?
- How long would a carob tree take to grow?
- Why was the girl planting the tree?

- What did Honi learn when he woke up?
- What might this story encourage Jewish people to do?

Pupils could draw a key scene from the story and write answers to the questions around it.

## 2 A FRUITY **SEDER MEAL**

Explain to pupils that another ancient custom being revived by some Jewish people is connected to fruits and trees. Ask pupils if they can think of examples of the following:

- A fruit with a hard shell, but an inside that can be eaten.
- Fruits that are soft on the outside, but with stones or a



hard bit inside.

• Fruits that can be eaten in their entirety.

With pupils, recap the seder meal that is eaten by many Jewish people at Pesach (Passover). Explain that some Jewish people have begun to eat a special seder meal for Tu B'Shvat based on ideas from Jewish history.

The plate is split into four, symbolising the four seasons. Many Jewish families will try a new fruit for this festival. In addition, they might use wine or grape juice to symbolise the seasons. Pupils could draw the items on the seder plate and write what they symbolise. For example:

• Winter: a full glass of white

wine/grape juice, and fruit with a hard shell to eat.

- Spring: a glass of white wine/grape juice with a small amount of red in. Eating a fruit with a hard stone inside.
- Summer: a glass with half white wine/grape juice and half red. A fruit which is entirely edible (no shell or stone).
- Autumn: a full glass of red wine/grape juice.

It would be great to have the grape juice in class so children could see the changing colours and proportions, too!

After discussing the seder, ask pupils:

- Why might a Jewish family celebrate in this way?
- What might it teach them

about the world?

 What might it teach them about G-d?

Answers to these questions could be recorded around the picture of the plate.

### 3 HEALING THE WORLD: 'TIKKUN OLAM'

Explain to pupils that many Jewish people believe that part of being Jewish is to take some responsibility for the state our world is in and, where possible, do something to make it better. Jewish teaching includes a phrase, 'tikkun olam', which means to heal or mend the world. It is one of the duties of being Jewish. Ask pupils to consider how both the story of Honi the Circle-maker and the Tu B'Shvat seder meal might teach Jewish people more about 'tikkun olam'. Elicit answers around planting for the future, being grateful for creation, and feeling responsible for the natural world.

Go on to explain that some Jewish people will either plant a tree for Tu B'Shvat or give money to charities for environmental projects in other parts of the world, particularly Israel. How are these practices an example of 'tikkun olam'? What else might Jewish people do to mend the world?

Adam Robertson was a primary teacher for 14 years and now works as an adviser for RE Today which supports NATRE, the professional association for RE teachers.

- In Leviticus 25 in the Torah, G-d commands a 'Jubilee' or year of rest every 49 years. All the land is to be left fallow and anyone can have access to it. How might Jewish people today interpret this idea of leaving the land to rest? Are there parts of our world that need resting? If we were to create a
- Jubilee year for our earth, what would we stop from happening? How might that link to the Jewish idea of 'tikkun olam'?
- Get crafty and create your own Tu B'Shvat tree. Help pupils to cut out a tree shape with bare branches from paper or card. Then cut out lots of leaf shapes, big enough to write on, for the tree. Ask pupils to think of things the Earth has given us, for which we are thankful, and write them on the leaves. Take turns asking the children to read out what they've written as they glue them to the tree. You can also draw the tree on the board, and stick the leaves on with blue tack or sticky tape.

# USEFUL **QUESTIONS**

- Why might more **Jewish people** be celebrating Tu B'Shvat today?
- If the Earth is a gift from G-d, how might Jewish people try to 'mend our world' today?
- How would our world be different if we treated it as a gift?

Science, Maths



# WHAT THEY'LL LEARN



How to construct
 a table to
 collect data

numerical data

- That repeating results is necessary to get reliability
- How to calculate averages from a set of data
- How to construct an accurate line graph

# Teach line graphing with paper spinners



Develop the core skill of data collection and accurate graph displays, with **Paul Tyler** 



The ability to construct an accurate line graph is a core science and maths skill that requires explicit teaching and lots of real-life context. Look for opportunities in science and maths where children can collect numerical data and then construct a line graph to display that data clearly.

Throughout KS1, children will have been displaying collected data on bar charts and pictograms. KS2 science investigations are ideal for moving on to line graphs and teaching children to look for relationships in their data.

# START HERE

Start by showing the children a variety of charts and graphs with data displayed in different ways. Ask them what each chart or graph is



showing and how easy it is to understand the data presented. Discuss why some options are better for displaying certain types of data. For example, a bar chart might be best to display the results of a class survey on favourite sports, whereas a line graph would be better to show average rainfall across different months. You can also show pupils some 'bad' charts and graphs (you'll find examples online) and ask what's wrong with them.

# **MAIN LESSON**

# 1 MAKE YOUR SPINNERS

Dropping paper spinners with an increasing number of paperclips attached is an ideal investigation to introduce children to data collection and graphing.

Ask the children to work in pairs. They will need a paper spinner template (you can download one at **tinyurl.com/tp-PaperSpinner**), a pair of scissors, 10 paperclips and a stopwatch.

Help your pupils make their spinner by following the instructions on the template. Then ask them, in their pairs, to practise dropping it and observing how it flies. The higher they are able to drop it from the better, so if you have a balcony or stairwell in school that they can safely use, that's ideal. Otherwise dropping it from as high as they can hold it will work, too.

Constructing a table to collect data is also a specific skill, and needs to be taught. Discuss the fact that the variable in the investigation is the number of paperclips, and that the data they will be collecting is the time the spinner takes to drop. Ask them to draw a suitable table on a mini whiteboard, which makes it easy to make any necessary changes before they start.

# **2** DATA COLLECTION

Get one child in each pair



to drop the spinner with one paperclip attached, and the second child to time how long it takes to reach the ground using a stopwatch. Ask them to record the time (in seconds) in a table. Then get them add another paperclip to the bottom of the spinner and repeat the timed drop, recording the result in the table. Keep adding paperclips to the spinner, dropping it and timing the descent up to a total of 10 paperclips. Then go back to one paperclip and repeat. Ask the class to repeat each measurement at least three times - explain to them that repeating measurements makes their results more reliable.

Once they have collected all their data in the table,

they can then calculate the average (mean) of their repeated measurements before constructing their graph. If one of their measurements is significantly different to the others, then it can be discounted - you can discuss 'outliers' with them, which are data points where it is obvious something wasn't right.

### 3 PLOTTING GRAPHS

Once the children have collected their data and calculated their averages, they need to think about their graph. I always get them to sketch what it will look like on a mini whiteboard - this gives them an opportunity to think about the scale of the Y-axis.

Explain that the numerical

variable they changed through the investigation (number of paperclips) goes along the X-axis. These values should be spread out as much as possible and the axis clearly labelled. Make sure they know the importance of using a sharp pencil and ruler to draw

Next, explain that the collected data will appear on the Y-axis. This should start at zero, where it meets the X-axis, and the scale needs to be carefully calculated so the highest data point will fit on the page. For example, 4cm = 1 second. This step is really important, and time should be taken to get it right before any of the data is plotted. The Y-axis needs to be carefully labelled, too.

Once pupils have drawn both axes, they can start plotting their data. Ask the children to work up from the X-axis to the relevant position on the Y-axis and draw a small 'x' to mark the data point. Then ask them to repeat this for the other collected data points.

Finally, get pupils to connect each data point to the one next to it with a short, straight line drawn with a ruler. This allows them to see the trend of the data very clearly and draw conclusions from it.

Paul Tyler is a primary teacher and science specialist at Kirkhill Primary School in East Renfrewshire. He is passionate about linking primary science and maths wherever possible.

- Change the material of the spinners (aluminium foil and acetate sheet are both excellent construction materials) and see if that changes the data. Pupils could plot this data on the same graph to be able to directly compare the two sets.
- Combine the data for the whole class to create a large data set which can then be plotted on a graph. This allows the children to compare the reliability of the data they collected in their pairs with the data collected by the rest of the class.
- Once children have mastered the basics of constructing graphs, move on to using spreadsheet software. Get them to input their data and manipulate the graphs the software produces.



Download your free paper spinner template at tinyurl. com/tp-PaperSpinner

# **USEFUL**

- Why are a ruler and a sharp pencil so important when constructing your graph?
- How could you improve your data collecting table next time?
- Why do you need to collect each data point several times?
- What conclusions can you draw from your plotted data?

# Top of the class

Resources and activities to bring fresh inspiration to your classroom



# Diabetes support

The InDependent Diabetes Trust (IDDT) offers support and information to people with diabetes, their families and health professionals, on the issues that are important to them. Its helpline offers a friendly understanding ear when the going gets tough. IDDT supplies information packs to parents and teachers so they understand the needs of children with diabetes in school and provides much-needed aid to children with diabetes in developing countries. Diabetes can cause serious long-term complications and a cure is still elusive. so IDDT funds essential research. As a registered charity IDDT relies entirely on voluntary donations. For more information or to join, visit iddtinternational.org



# Language-rich communities

Bedrock Vocabulary is a comprehensive online programme for pupils in KS2-KS4. Through the knowledge-rich curriculum of fiction and non-fiction texts, children are immersed in aspirational Tier 2 vocabulary, engaging students and closing the word gap. Powered by deep-learning algorithms, this scheme delivers consistent, adaptive, multimodal learning. Perfect to use in class and as homework, Bedrock Vocabulary allows students to work independently. Learning is tracked via an online knowledge organiser and teacher dashboard. Request a trial at app.bedrocklearning.org/trial

# Sports premium

Timotay Playscapes creates inspirational outdoor spaces for schools and Early Years settings. To support the Sport Premium initiative, it has developed a proven range of engaging products that will motivate children and increase participation in sports and help to reduce obesity. Contact Timotay for your free inspiration guide and consultation at enquiries@timotayplayscapes.co.uk





# Back on track

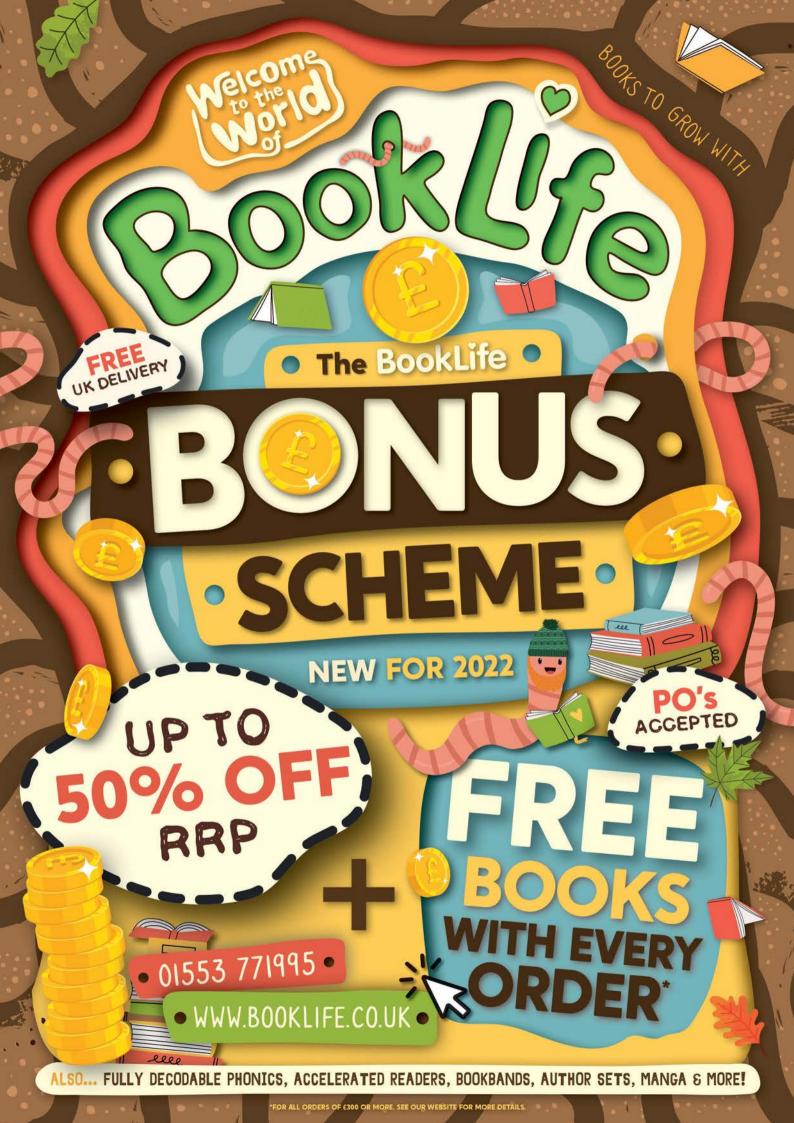
FFT's Tutoring with the Lightning Squad has been approved as a Tuition Partner by the National Tutoring Programme to provide reading tutoring for primary school pupils in Years 1-5 in all regions in England. With the National Tutoring Programme, pupils will work with a tutor for six weeks to catch up on their reading skills, with daily 30-minute tutoring sessions in school, covering all the key skills required to make good progress. FFT also provides your school with a qualified and trained tutor, and access to their online tutoring programme. fft.org.uk/tutoring



# **Transform** financial education

Money Heroes is an award-winning free programme from Young Money, supported by HSBC UK, which seeks to transform financial education for primary children, aged 3-11, in school and at home. Offering a range of resources, tools and guidance, including storybooks and games, ensures that children have the opportunity to develop their knowledge and skills across the core themes from the Young Money Primary Financial Education Planning Framework.We're also offering schools free in-house teacher training and bespoke 1:1 mentoring support to guide the planning and delivery of financial education within schools.

moneyheroes.org.uk







# SCHOOL STORAGE

BiGDUG's shelving and storage helps you stay organised.

The trusted experts in space utilisation.

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# LITERACY

# **Tutoring with the Lightning Squad**

A catch-up tutoring programme designed by specialists to improve reading skills



# AT A GLANCE

- An evidence-based literacy programme that improves reading skills for pupils in Years 1-5
- Approved for use with the National Tutoring Programme
- A blended approach using face-to-face tutoring and structured online learning
- Daily 30-minute tutoring sessions for six weeks to deliver 15 hours' tutoring per pupil
- Designed and structured to improve reading skills, fluency, comprehension, spelling and phonics
- Reporting to monitor impact on reading skills





# **REVIEWED BY: JOHN DABELL**

After the events of the last two years, there is plenty of catching-up to do – especially in reading among vulnerable and disadvantaged pupils. Educational research shows the most effective solution for struggling readers is tutoring, either one-to-one or in small groups.

One way to address this is via a highly motivating, peer-supported, interactive multimedia tutoring programme.

Tutoring with the Lightning Squad (TwLS) is a small-group, web-based reading programme for struggling readers from the Fischer Family Trust (FFT).

The aim of TwLS is to improve phonemic awareness, phonics, fluency, word blending, spelling, vocabulary, and comprehension through interactive, partner-supported game-like cooperative activities. What makes this reading offer high calibre is that it blends face-to-face tutoring with an engaging online platform.

This involves small groups of pupils working through 65 specially written and illustrated stories with a literacy intervention tutor to improve their reading skills. The National Tutoring Programme provides subsidised high-quality tutoring from an approved list of tuition partners, FFT recruits the tutor (an experienced teaching assistant or qualified teacher), and 70 per cent of the tutoring cost is subsidised by the National Tutoring Programme with schools paying

the remaining 30 per cent.

Pupils work with a tutor in daily half-hour sessions for six weeks to catch up their reading skills. The tutor works with 20 to 30 pupils, delivering 10 tutoring sessions each day for groups of two or three children for half an hour at a time.

After six weeks, FFT will train your own TAs to continue with the programme for another 10 weeks, free of charge.

At the beginning of the programme, pupils take a short online assessment that helps decide which groups should work together and where they start on the programme. When up and running, regular tutor checks are built in so that children are moved on when they are ready and have attained story-level mastery.

TwLS also keeps a close eye on reading attainment progress through its tracking and reporting feature. Its individual online reports include new words learned, reading age, reading fluency and a measure of reading progress. A brilliant tutor dashboard makes sure no one slips under the radar.

The online activities are bright, highly engaging, and very easy to use and navigate. Pupils read progressively challenging stories and then engage in story-related activities with a partner taking turns as the player/reader and coach. Pupils receive reading-related rewards when they have passed their tutor check, and earn points that they can cash in for prizes.

# teach PRIMARY

### **VERDICT**

- ✓ A comprehensive, evidence-based and highly cost-effective tutoring programme
- ✓ Boosts reading attainment and helps pupils make fast learning gains
- ✓ High impact on reading fluency and pupils' comprehension skills
- ✓ Strong evidence of effectiveness at producing results and improving outcomes
- Engaging, effective and reliable
- ✓ Sophisticated assessment and feedback to help analyse progress

## PURCHASE IF...

You are looking for a catch-up literacy intervention using a blended approach to teaching reading, with a proven track record for improving skills and creating confident and capable readers.



# STABILO EASYoriginal pens & EASYgraph S pencils

Ergonomic pens and pencils developed by experts specifically for both left- and right-handed children

### AT A GLANCE

- Skilfully designed pens and pencils based on ergonomic principles in penmanship
- Left- and right-handed versions
- Focused on comfort and efficiency
- Tested by expert scientists
- Pencil wood is sourced from responsibly-managed forests





### **REVIEWED BY: JOHN DABELL**

How much do we think about handedness when we consider children's needs? Handedness is the preference for using one hand over another and when it comes to the school environment this really matters.

Left-handed children often struggle when the resources aren't there to support them. This is often the case when it comes to writing utensils and scissors. Left-handed pupils can often appear uncoordinated or disorganised as most equipment is set up for right-handed children.

STABILO has thought long and hard about the user experience to cater for everyone and its product range is impressively inclusive. Every operational characteristic has been considered from the size, weight, shape and length of the instrument to the surface texture and hardness of the shaft, ink flow, smoothness, writing fatigue and more.

The EASY Start range is a vibrant and ergonomic family of writing equipment specifically designed for learning and improving handwriting skills at a young age. Led by the latest research in handwriting ergonomics, these are clever products that put writing comfort, legibility, efficiency and motivation right at the centre of design so that children can have fun improving their skills.

STABILO's EASYorginal pens are a joy. These really attractive wide-barrel refillable pens have been ergonomically moulded so that children use the lightest grip possible while writing. The slightly arched shape helps pupils to achieve the recommended tripod grip, eliminating strain. It also features a rubberised grip around the pen barrel for increased traction.

The STABILO ergonomic pens use a rollerball design which flows freely. This helps reduce writing pressure which can lead to pain over longer pieces of written work. The nibs are broad and flexible and use royal blue erasable ink, ideal for school use.

STABILO's handwriting pencils with break-resistant 2.2mm lead have also been designed specifically for left- and right-handers, EASYgraph Spencils have a brilliant triangular design and non-slip grip moulds which magnificently support a relaxed hand posture. They also have a subtle yellow and red colour coding at the end of the pencil to indicate whether it is a left- or right-handed version.

They come in a range of five shaft colours and the S (slim) versions have a slenderer barrel than the original, but still with a space for inscribing your name.

Every child should benefit from adopting an ergonomic way of working and STABILO has given us the tools to work in a more efficient and child-friendly way. These are writing resources that truly break the mould.



### VERDICT

- Sophisticated, intelligent and intuitive designs to tackle handwriting issues
- Non-slip, comfortable to hold and prevents stress, tiredness and potential damage to hand posture
- Revolutionary, fun and attractive designs
- Quality through and through for a great price
- ✓ Takes the stress out of handwriting

# UPGRADE IF...

You are looking for writing resources that truly cater for left-, right- and mixed-handers.

Pens from £3.29, pencils from £1.04, stabilo.com/uk



# Jigsaw 3–11

A unique, whole-school approach to mindful PSHE teaching in primary schools



## AT A GLANCE

- A universal, core PSHE curriculum and programme for the whole primary school including statutory relationships and health education
- A unique, spiral, progressive and effective fully planned scheme of work
- A wealth of resources including lesson plans with all teaching, learning and assessment resources included
- Covid-19 recovery package with 18 lesson plans and two assemblies
- Based on mindfulness





### **REVIEWED BY: JOHN DABELL**

Fifty per cent of mental health problems are established by the age of 14, which is why early intervention matters and primary schools play such a vital role in providing high-quality PSHE lessons.

But PSHE provision in schools varies enormously and there can be a scattergun approach to resourcing it, which is why opting for a whole-school option is preferred.

Jigsaw's new primary PSHE online portal – already used by over 5,000 schools – is really something special and is devoted to promoting positive health and wellbeing through the development of a positive ethos and culture where everyone feels that they belong and respected. Jigsaw covers all areas of PSHE and R(S)HE for the primary phase.

This isn't a one-size-fits all programme, but helps children to know themselves and others so they can flourish with the skills, knowledge and confidence to navigate the present and the future.

It is easy to see why Jigsaw 3–11 is the number one online PSHE provider. The resources have been created by a team of teachers with an overwhelming passion for children's mental health and how they learn. They provide a mindful approach to PSHE and health and wellbeing (HWB) with strong emphasis on emotional

literacy, building resilience and nurturing mental and physical health enhanced through the Jigsaw REST (Resilience and Engagement Scale and Toolkit).

The colourful homepage is gloriously straightforward and gives you a choice of either materials or community. In the materials section you will find all the resources you need to deliver Jigsaw, including lesson plans and whole-school opportunities such as assemblies (with songs), end-of-puzzle displays, assessment, certificates, music/songs and weekly celebrations to reinforce the curriculum work and enhance the positive ethos of the whole school.

The community section includes stacks of support with a profusion of additional resources, as well as a training library, which is a rich source of professional support. On top of this, Jigsaw provides every school with a mentor who will help guide you through the programme, and answer any queries you might have.

If you want to restyle and overhaul your school culture and help create a positive environment where children are better able to learn, then Jigsaw PSHE is a magnificent foundation. It drives excellent behaviour, helps children be resilient and to grow in self-confidence, and nurtures self-reflection.

# teach

# **VERDICT**

- ✓ Rich and varied resources for equipping children with the skills to lead happy and healthy lives as emotionally intelligent individuals
- ✓ Extremely user-friendly and highly accessible portal rammed with high quality materials and support
- ✓ Provides children with relevant learning experiences to help them navigate their world and to develop positive relationships with themselves and others ✓ Maximises children's learning by promoting good mental health and wellbeing across the school

# **UPGRADE IF...**

You are looking for an inclusive, progressive, age-appropriate whole- school development tool.

# LITERACY

# The Literary Curriculum

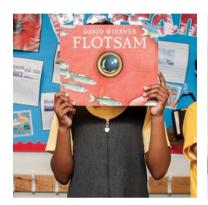


A complete thematic approach to primary English, with literature at its core

## AT A GLANCE

- A complete book-based approach to literacy to interest, engage and activate inference
- A rigorously curated collection of rich and varied books rooted in strong contexts
- Follows a 'Teach Through a Text' pedagogy
- Cohesive sequences to help children build a literary repertoire
- Structured to develop deeper reading







Giving children access to all varieties of literature is extremely important for their success. One way to underpin your curriculum is to teach topics focused on a book-based English curriculum, encouraging children to work towards shared goals of ownership and authorship of their reading and writing.

Well worth considering is the Literary Curriculum, a complete, thematic approach to the teaching of primary English that places children's literature at its core. This flexible and cross-curricular treasure trove provides ideas, inspiration and structure galore for your literacy curriculum and raises standards by immersing children in a literary world, creating strong levels of engagement to provide meaningful and authentic contexts for their studies.

Taking out a school membership of the Literary Curriculum is probably the best value option because this gets you access to an impressive repository of 300+ top-quality resources. These include planning sequences, Literary Leaves, Spelling Seeds, Home Learning Branches, Learning Log videos, recover and catch-up resources, and writing samples. It also gives you access to a recording and assessment tool for English, whole-school overviews and coverage maps, Literary Curriculum yearly thematic map, a literacy policy statement and permission to use the Literary Curriculum badge on your website.

Let's not forget the 200+ books, which include an impressive range of novels, novellas, picture books, wordless texts,

narrative poems, playscripts and narrative non-fiction with a healthy cross-section of genres from historical narrative and mystery to adventure and fantasy. They dare children to grow and challenge perspectives, and allow them to experience multiple realities and bring reading and writing to life.

Thorough downloadable planning is provided, too, based around high-quality children's books dovetailed to detailed daily session plans for writing, reading and spelling. All come with customisable medium-term overviews.

The plans follow a 'Teach Through a Text' pedagogy to ensure participation, scope and outcomes, including explicit grammar objectives, spelling investigations and purposeful writing opportunities that are varied and highly engaging. The planning, resources and activities are a superb mix and are brilliantly written and very accessible.

The Literary Curriculum provides children with innumerable opportunities to respond to literature and acts as a powerful change agent by developing their intercultural awareness while at the same time nurturing empathy, a tolerance for diversity, and emotional intelligence. It dynamically builds sophisticated reading and writing experiences, provides pleasure and its flexibility makes it particularly suitable for a wide range of needs.

It is a whole-language resource constructed with precision and flair with the belief that you can promote literacy by developing a love of literature and reading, through positive contact with books.



## **VERDICT**

- ✓ Puts literature at the very heart of English provision
- ✓ Creates immersive experiences for children that provide a platform for learning
- ✓ Helps pupils develop their critical reading, critical thinking, and self-regulated learning skills
- Provides outstanding opportunities for children to write for a range of meaningful and 'real' reasons
- Creates opportunities for learners to develop empathy and enquiry
- Supports the development of a school-wide reading culture

## **UPGRADE IF...**

You want to develop a high-quality literacy curriculum, foster a whole school love of reading and writing, and provide children with plenty of cognitive and creative challenges.

Literary Curriculum whole-school membership for a single-form school – £714.00

www.literarycurriculum.co.uk



# Sparkyard from Out of the Ark

A comprehensive platform of resources to support the integration of singing and music in every lesson



# AT A GLANCE

- A carefully constructed online subscription service
- Nearly 1,000 songs from award-winning writers
- Songs and accompanying resources to support teaching topics across most subjects
- Useful playlist and collections functions to organise and share resources
- Includes a comprehensive music curriculum





### **REVIEWED BY: MIKE DAVIES**

Music has a power of its own. As Professor Dumbledore quipped at Harry Potter's first Hogwarts feast, it is "A magic beyond all we do here!" Singing is especially potent, as anyone who has belted out a tune in the shower or the car surely knows. And now there is a way of unleashing that delightful sorcery upon all aspects of school life.

Sparkyard is a brand-new, online educational music service from Out of the Ark. It is designed to help teachers bring the benefits of singing into every lesson.

Many schools will be familiar with Out of the Ark through their popular nativities and shows. Sparkyard builds on that experience to help teachers illuminate all corners of the curriculum.

This doesn't just sound appealing – it is founded on solid evidence. Their Singing Schools Project, conducted with Professor Susan Hallam, MBE, highlighted the many benefits of introducing singing throughout the school day. As well as delivering marked improvements in pupil confidence and self-esteem, it produced significant academic gains too.

It is not hard to see how. There is something about a catchy song that just sticks in the mind. Singing times tables is an obvious example, but Sparkyard offers a song for almost every teaching topic you can think of.

For those of us who doubt our musical ability, Sparkyard also offers a comprehensive music curriculum that methodically builds pupils' skills. Complete with detailed lesson plans and a choice of songs for each session, it is bound to increase confidence in even the most self-conscious teacher.

The service also includes fully resourced assemblies, songs for every routine from lining up to tidying up, and even a song calendar to mark topical events.

As you would expect from Out of the Ark, each ditty comes with a recorded version and on-screen lyrics. Furthermore, there is a wealth of background information, teaching suggestions and curriculum links attached to many of the song files.

There are nearly a thousand songs, so it is just as well that there is a powerful search engine that takes you straight to what you're looking for. Your choices can then be corralled into playlists and collections, which can be shared with colleagues. There is even a way to let pupils access them at home on a range of devices, including smartphones and tablets. I strongly suspect that Sparkyard's arrival will be greeted by schools with a chorus of approval.



# **VERDICT**

- ✓ User-friendly and accessible
- ✓ Catchy songs tailored to all primary ages
- ✓ Informed by research
- ✓ Builds confidence with teaching music
- ✔ Boosts academic performance as well as pupil self-esteem

# **UPGRADE IF...**

You want to harness the power of singing to bring significant improvements across all aspects of school life.



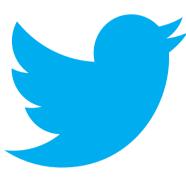
# A I in the Late



# A one-day diary from first alarm to lights out

# **WAKING UP**

My alarm goes off at 6.30am, and the first thing I do is check my emails to make sure there are no emergency cover notices I need to see. Then I usually scroll Twitter to catch up on what's been going on in education.



**LISA COE** IS MATHS LEAD FOR THE INSPIRATION TRUST

@Elsie2110



# MY MORNING

I normally get to school at around 8:15am, and then as maths lead, I make sure everyone is up to speed and happy with what they're teaching. I'll also check emails again, to see if there are any queries or questions from the other schools I support.



# MY AFTERNOON

The afternoon is typically split in half. At the moment I spend the first half writing spring units for the Year 6 maths curriculum, including creating slides for teachers and coming up with tasks. The other half is dedicated to interventions with Year 6. We'll usually look at what they've struggled with in class that week.



Again, emails play a big role! I'll use my lunch break to reply to questions from schools, and will also check in with the maths curriculum I'm writing

for the Trust. I'll usually eat some soup, followed by a coffee and a biscuit.



# MY EVENING

I try to leave school about 4pm, and carry on working from there. I'll continue checking in with emails, setting up meetings and working on the curriculum until about 5:30pm, then I'll get some chill time with a book, or play Animal Crossing.





# BEDTIME

My goal is to be in bed by 10pm, I have a weighted blanket which I usually cuddle up with, and I'll often listen to a podcast instead of reading or scrolling my phone, as I find audio helps me sleep better.

# QUICKFIRE QUESTIONS

- Career plan B? I honestly find it hard to envision myself doing anything else! I suppose if I wasn't in this role, I'd be doing some sort of educational consultancy.
- \* Must-listen? Currently, Jay Rayner's podcast Out to Lunch, where he interviews celebs while they're eating. I've also been listening to the Vaccines a lot - they're great at lifting the spirits.
- \* Must-read? I'm really enjoying the third Percy Jackson book at the moment, and on the education side I've been reading Yes, But Why?, by Ed Southall, a great book on teaching maths.
- Twitter hero? There are so many, but Kieran Mackle (@Kieran\_M\_Ed) is someone I've been resonating with a lot recently. He's also a maths lead, and has written two books as well as having a podcast! I really like how he so clearly communicates his ideas.

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### Joe Lane

Word Coordinator and Assistant Principal, Harris Academy Peckham

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