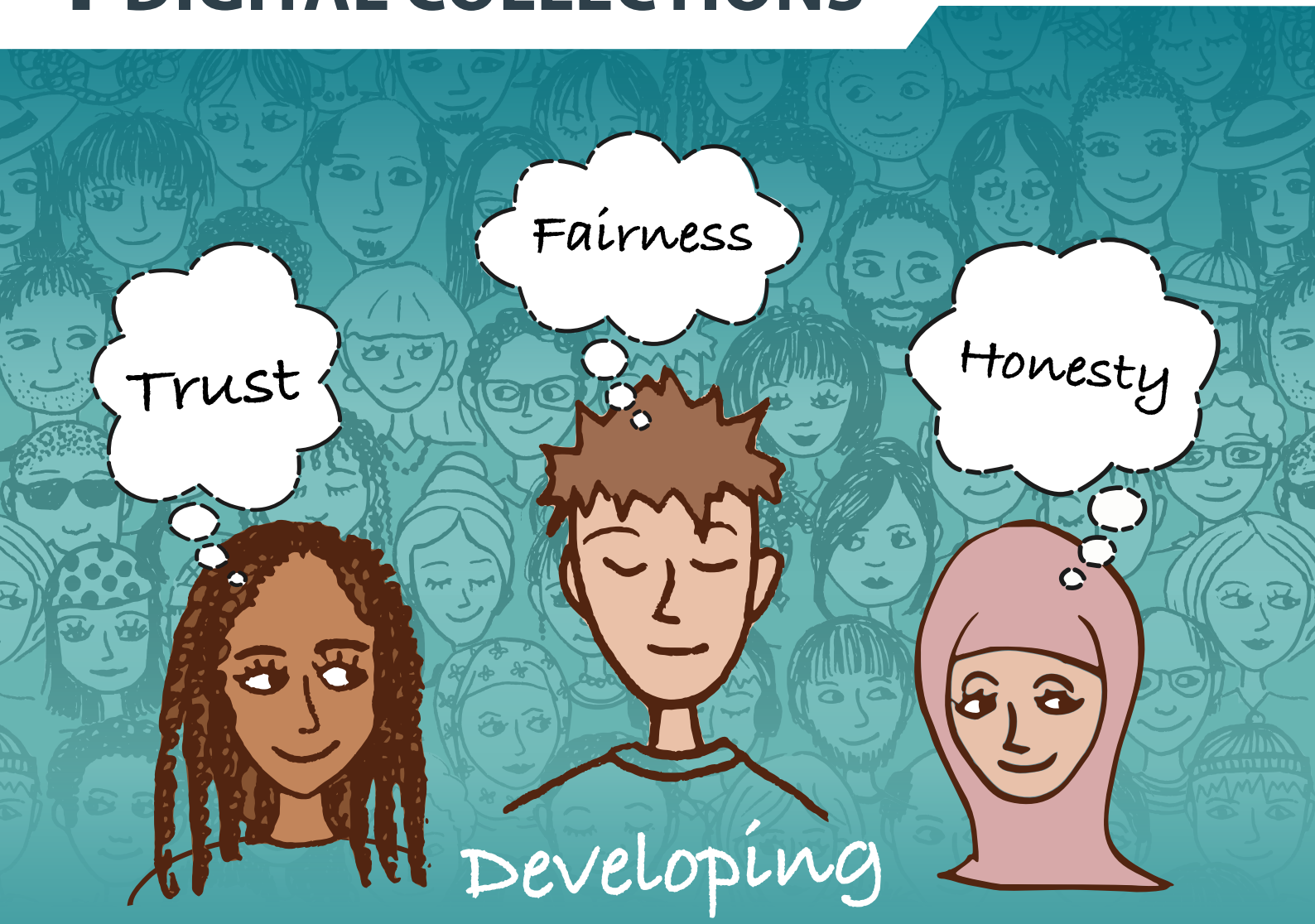
SECONDARY
LEARNING RESOURCES
+ DIGITAL COLLECTIONS

LONDON GRID FOR LEARNING

SuperCloud

Magazine Version: 1.0

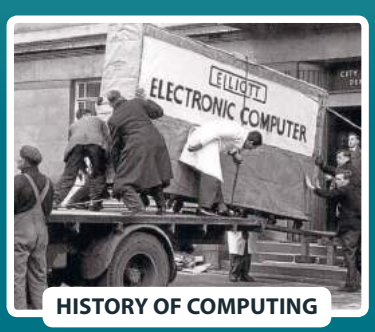


Developing
BRITISH VALUES

HIGH-QUALITY, SAFE AND RELEVANT TEACHING MATERIALS FOR DEEPER UNDERSTANDING AND INFORMED DEBATE BY YOUNG PEOPLE. PAGE 28

VIRAL CONTAGION

EXPLORING THE REAL-WORLD MATHS BEHIND AN OUTBREAK OF A BIOLOGICAL EPIDEMIC



HISTORY OF COMPUTING

WW1 AUGMENTED REALITY

+ FEATURES INCLUDE ■ ONLINE SAFETY ■ SEND INCLUSION ■ AR/VR ■ TRAINING HUB

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WELCOME

2018 will see some significant advancements in the service offer for schools, placing informed school choice at the heart of all that we do; evolving the service offer to help you transform not just your teaching and learning but all aspects of your school operation through the uptake of cloud based technology. Despite this revolution, one thing will never change – teaching & learning comes first.

2017 saw a range of initiatives that ensured that LGfL will remain the lead provider of online technology services to London schools and beyond. Refinements to our technical services, unique online content, support for inclusion or our ever expanding safeguarding guidance and support, we continue to ensure that teaching and learning is at the heart of what we do for schools. We are also committed to securing best value for schools, the money you save by being with LGfL can be invested back into your own strategic priorities.

In the first few weeks of the year, we won a ERA Award for our Cyber Pass online safety diagnostic tool. This tool is helping teachers to not only understand the competencies of their learners to help support their curriculum planning but also increasingly it is proving a source of regional data on the competencies of children across London to help inform policy, not just at school level but also within a regional policy context.

The CyberPass resource embodies the spirit within which we work – we don't just suggest a new approach to learning, wait for a quick 'wow!' and then return to business as usual. We want to make tech work for teachers, meet a clear need (online safety remains 'a challenging area to support learners who have such varying capabilities'), and lay the groundwork for curriculum excellence, whilst ensuring safeguarding is at the heart of all that we support in schools. The ERA Award was recognition of that aim.

Since we launched the LGfL Training Hub in September 2016, over 600 teachers have now benefitted from our curriculum centre of excellence; we have learning resource consultants that can support you directly in school, we boosted bandwidth for all our schools, with an upgrade that truly futureproofs our network; and the community continues to grow to more than 3,000 schools.

Our services are truly national in their reach including Sandwell, Liverpool, Glasgow and Northern Ireland. And we are delighted to provide schoolsafe broadband, cloud services and online learning resources to some of the UK's largest and most successful academy chains. Looking forward to 2018 then, we are ramping up our efforts to bring cloud transformation into education.

There is much more to the cloud than meets the eye, and we are engaged in various projects that will benefit schools looking for help in this area (read more on page 6). As part of this, we have launched the Champions Pilots with both Google and Microsoft which we think will be truly transformational for schools which take part.

At the same time, we will continue to expand our CPD offering, increasing safeguarding activities, rolling out the Free-School Meals Checker to every UK school, and much, much more.

It has been an exciting journey for me so far, and I look forward to the next exciting chapter with you in 2018.

John Jackson
LGfL CEO

Find out more about LGfL at **www.lgfl.net**
Stay up to date at **news.lgfl.net** and on social media

Facebook
/LondonGridforLearning

Twitter
@LGfL

SuperCloud starts here!

Transformation, disruption, innovation are words often used in the Ed Tech community to describe the potential of new technologies, and the same goes for cloud technologies. With CEO John Jackson's long experience of using the power of the cloud to transform local government, he is bringing his experience to bear in the education sector. But what's it all about and how can the cloud help busy teachers and cash-strapped schools?

That is the driving force behind our new partnerships with Google, Apple and Microsoft. All offer amazing opportunities for the classrooms of the future, and we are committed to making it easier for any school wanting to make the most of cloud and next-generation digital platforms.

Don't worry though – we aren't forcing this on anyone; our commitment to school choice can be summarised in the concept of 'freedom first', which is at the heart of all that we do for you. We are now helping schools via our training programme, centres of excellence and the new LGfL TV portal, which will help offer a focus for developing the ideas of the senior leaders of tomorrow.

My background in local government can be summed up in one word: transformation. And for me, that is the essence of the cloud.

For many people, 'cloud' is a nebulous term (no pun intended), but I can assure you that this is not just a trendy buzzword.

For me, it is about a different mindset; about getting things done in the most effective way whilst saving real money; about cutting out waste and adding exciting new functionality that allows teachers and students to focus on their core tasks – teaching & learning.

At LGfL TRUSTnet, we are committed to enabling and accelerating cloud adoption. We already offer supercharged, schoolsafe, value for money connectivity.

But we want to leverage that to enable digital transformation of schools on a large scale. That requires common platforms, services and infrastructure; it means one-and-done, ultra-reliable connectivity; it means pay as you use, not pay when you don't; it means open-source friendly; and in order to be truly responsive to schools' needs, it also means open and interoperable, whether with Google, Apple and Microsoft (see pages 6-7) or with newcomers to the education arena.

Technologists often talk about wanting to cause disruption – that is, to shake up the market and bring about a revolution.

In schools, disruption (albeit with a slightly different meaning) is generally undesirable, so it is important to state that we are not looking to force our users into anything, but we do want to enable them to do a lot more if they so choose! Freedom comes first!

2018 will be a big year for the cloud, so be sure to stay up to speed with the latest developments and take advantage of all the ways we can support you and your community of learners.

news.lgfl.net

G SUITE FOR EDUCATION

Google Classroom and the other G Suite for Education tools are already exciting schools around the world. At LGfL, we are all about digital transformation, so that's why we have formed a strong partnership with Google to help our schools 'go Google'.

Google's strength is the development of technology solutions that 'simply work' and have, at their core, a commitment to innovation. G Suite for Education provides a platform for learning that enables realtime collaboration and helps teachers save time.

G Suite was built in the cloud and as a result enables you to access your work and collaborate from any device, any time, from anywhere. Chromebooks are a really powerful and low cost device that are exceptionally easy to manage with minimal IT support. This is why Chromebooks are the most popular device in US and Swedish schools and UK schools are rapidly seeing the benefits, too.

Around the world, there are more than 70 million active users of the platform (and it is growing rapidly). Teachers and students say that the platform truly drives collaboration

in schools and helps promote a learning culture based on peer-to-peer interaction and project-based activity.

Google Classroom represents Google's biggest investment yet in the education space. At its core, Classroom provides a set of tools to help teachers create and collect assignments paperlessly, including time-saving features like the ability to automatically make a copy of a Google document for each student. With unlimited storage and no hidden costs, G Suite is a fantastic tool to have in your school's toolkit! With upcoming changes to GDPR, and Google's commitment to compliance and security as a data processor, there's never been a better time to move your school to the cloud.

We have recently launched the Google Cloud Champions programme and 50 schools are currently helping us identify excellent practices - we look forward to sharing these with you soon! We have lots of free G Suite Training available for LGfL schools which you can sign up for at training.lgfl.net. And if your school hasn't already gone Google - what are you waiting for!? We can help you through every step of the way including synchronising users with their USO account. Just get in touch with **Oli.Trussell@lgfl.net** to find out more.

G Suite

Introducing Classroom
Create, share, and grade assignments with ease. Classroom was designed to help you save time and keep classes organised.

Take Gmail to school
Gmail's spam protection, powerful search, and integrated calendars help you get more done. For education, there are absolutely no ads.

Streamline your class
Create, share, and grade assignments with ease. Classroom helps you keep classes organised, and improve communication with students.

Collaborate on documents
Create and edit docs, spreadsheets, and presentations right in your browser. Multiple people can work at the same time, and every change is saved automatically.

Share in the cloud
Save work files in Drive, access them from any device and share them instantly. No more sending attachments or merging different versions.

Share calendars
Spend less time planning and more time doing with shareable calendars that integrate seamlessly with Gmail, Drive, Contacts, Sites, and Hangouts.

Create websites
Launch a website for your class, your team, or a project with our easy site builder. All without writing a single line of code.

Meet face to face
Connect any time via video, voice, or text. Use text chat for quick questions and Hangouts for group video calls, virtual office hours, and field trips.

Archive your emails and chats
Manage, retain and search for your organisation's email and on-the-record chats. Export files to Google Drive and preserve your data.

MICROSOFT EDUCATION – OFFICE 365 FOR EDUCATION

In October LGfL and Microsoft reaffirmed their strong partnership and launched a new Cloud Champions programme. It gives 50 innovative schools in London that are focused on leadership, technological advancement and learning the chance to transform their educational offering by integrating technology into their classrooms.

Microsoft Education exists because we are passionate about engaging students and empowering teachers to have better learning outcomes. Everyday we work to understand how we can better support you to enable learning outcomes, access affordable and accessible learning platforms and create collaborative and creative institutions.

ENABLING LEARNING OUTCOMES

Institutions around the world are using Microsoft solutions to give their students 21st century technical skills in STEM, hands on activities to make them career ready and increase inclusivity and opportunities that create the next generation of global citizens. Whether it be using free lesson plans written by educators, tools such as Sway and PowerPoint QuickStarter and/or Skype in the Classroom, students who learn across Microsoft solutions are being supported to thrive inside and outside of the classroom.

AFFORDABLE AND ACCESSIBLE LEARNING PLATFORM

We know how precious your time is in the classroom and how important it is for all the technology that you are using to simply work. The Microsoft platform is simple to set up and manage, affordable and flexible enough to meet the needs of any individual, classroom, school, college or university. Tools such as OneDrive support high levels of security and collaboration in the cloud, enabling students, teachers and parents to access files anywhere, anytime, on any device.

MODERN TOOLS FOR A COLLABORATIVE CLASSROOM

Collaboration is integral to Microsoft Education solutions. Applications such as Microsoft Teams, Skype for Education, SharePoint Online and the Office Web Apps allow for a fully integrated system that connect the physical and digital in real time for truly transformative learning experiences.

We are also flexible and understand that you use different devices across different locations. Whether you are using PCs, laptops or tablets Office 365 for Education will work perfectly well with Macs, iPads, iPhones and Android smartphones and tablets which is why it continues to be the preferred solution for educational and professional institutions worldwide.

EXPERIENCES THAT SPARK CREATIVITY

With Office 365 for Education you can inspire and prepare the creators of tomorrow through fun and collaborative apps that are valuable tools in 21st century classrooms like Minecraft: Education Edition, PowerPoint QuickStarter, Paint 3D, and LEGO® Education WeDo® 2.0.

Unlock new ways to teach and learn with Windows Mixed Reality by transforming abstract concepts into 3D experiences in the classroom, enabling students to investigate more deeply, see more clearly, and learn by doing. Students and teachers can achieve this by allowing students imagination to take shape using Paint 3D. Students can create 3D objects from scratch or modify someone else's creation. When students are finished they can share it to their favourite social site or into the physical world using the Remix 3D community. This is true digital transformation.

Teams
Collaborate anywhere at anytime; increase your efficiency. Create collaborative classrooms, connect in professional learning communities, and communicate clearly with staff and students.

OneNote
Organise class materials into a single digital notebook; access and prepare lessons and assignments from any device; combine handwritten text, web content, audio and video for more compelling content and personalized learning.

Office 365 for Education
Create dynamic learning experiences in and beyond the classroom with the well-known core productivity applications.

Skype in the Classroom
Open-up the classroom and create exciting, memorable lessons – talk to experts, share ideas and create amazing learning experiences with classrooms from around the world.

Sway
With this digital storytelling app, students and teachers can create and share interactive reports, presentations, personal stories and more.

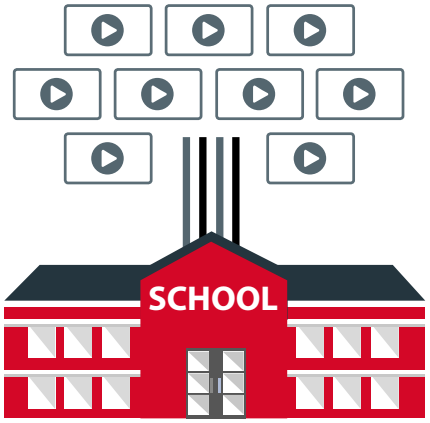
OneDrive
File storage and collaboration in the cloud, enabling students, teachers and parents to access files anywhere, anytime, on any device.

LEARN MORE WITH LGfL

WATCH MORE

5,280

VIDEOS UPLOADED BY LGfL SCHOOLS



1,189,741

PUBLIC VIDEOS PLAYED

132,000

PREMIUM VIDEOS PLAYED

INTERACT MORE

88,000

2017 AUGMENTED-REALITY APP DOWNLOADS

24,000

2017 VIRTUAL-REALITY APP DOWNLOADS

LISTEN MORE

57,500

PROFESSIONALLY RECORDED AUDIO FILES

READ MORE

36 AUTHORS

728+ INTERVIEW CLIPS ON READINGZONE LIVE

LEARN MORE

600

TEACHERS TRAINED AS PART OF LGfL'S CENTRAL TRAINING PROGRAMME

INSPIRE MORE

617

ATTENDED 2017 ANNUAL CONFERENCE

ENGAGE MORE

15+ MILLION

BUSYTHINGS PAGES VIEWED IN 2017

"Thank you for all you are doing to build a SEND community as well as much needed and outstanding resources!"

Sally Paveley
The bridge, islington

"LGfL's VideoCentralHD gives us a secure place to store and share video content from teachers and pupils. The ability to share these videos helps us engage parents more in their children's daily lives."

Bina Bond
Class teacher, PE leader & Maths development team, Anson Primary

"I teach in a SEND school, and my class loves the LGfL content we use. Audio Network, for example, is a great resource when creating sensory stories."

Kate Bradley
The Bridge School

"Fantastic resources available to LGfL schools for free!"

Carol Rockery
EAL Team Havering

"LGfL is so much more than a broadband provider. It has content that allows us to keep children safe online and enrich their curriculum experience, and provide crucial links to help parents support children at home."

Simon Pile
Assistant Headteacher, Anson Primary

FEATURES

BEHIND THE SCENES AT LGfL

ONLINE SAFETY P10

SEND INCLUSION P12

AR/VR P14

TRAINING HUB P16

THE STATE OF THE CAPITAL

All LGfL schools in London have access to CyberPass to assess the online-safety competencies of their pupils (find out more on page 28). The diagnostic tool not only provides a snapshot for individual schools, but also reveals trends across the capital and helps to inform policy and the support that we can offer to you. We publish regular reports on what we discover – read on to find out more…

If the average online-safety lead in a school were asked to identify an area of strength in the online-safety competence of young people, they would be unlikely to identify dealing with friends online as a strength, albeit against a background of young people living out their friendships online (and therefore developing a deep well of experience to draw from).

Nor, given the problems that schools face with sexting, would you expect 'sharing' to be a top topic (by the way, make sure the excellent sexting guidance from UKCCIS has been circulated, discussed and implemented in your school – this and more via sexting.lgfl.net).

Nonetheless, of the eight themes covered in CyberPass, the data consistently reveals that pupils score highest for skills that relate to managing friendships online, and for knowing what, where, when and how to share.

What lies behind this seeming contradiction? We reviewed the questions, and it isn't that the questions were wrong or too easy.

But it certainly provides food for thought. The finding perhaps shows that young people are hearing and understanding messages about how to treat friends online, but either choosing not to apply them in practice or more likely being unable to.

So are the messages we are giving to young people not relevant or not useful? Does it mean that we are not practicing what we preach as adults (surely no pupil in your school has ever found a teacher's holiday snaps on Facebook)?

The answers to both those questions have at least elements of truth to them, but there is no need to throw any babies out with the bathwater. But we do need to equip young people (and adults for that matter) with the tools to cope with their digital lives.

That means learning when and how to switch off and control the tech designed to control us; it certainly means honing critical thinking skills to spot fake news, fake friends, grooming and radicalization efforts and more besides.

That's what we at the LGfL DigiSafe team are committed to doing through our safeguarding resources, templates and signposting via our portal, as well as training, support and guidance for teachers

Read the full report:
safeonlinein2017.lgfl.net

Find resources for your Key Stage or area of need:
saferesources.lgfl.net

> "As increasing aspects of our lives move online and with young people spending upwards of 3 hours a day on the internet it is crucial that schools have the time and resources to teach these skills in the classroom."

Mark Bentley, Online Safety and Safeguarding Manager commenting on the findings of the survey.

TO ROAST
OR NOT TO ROAST?

"Roast me!" is a phrase I would normally only use when pretending to be a potato, which doesn't happen all that often. Those of you over a certain age probably feel the same (aspirations to vegetable imitation notwithstanding). But for young people, its alternative meaning can have severe consequences.

It's not new, but comes around in cycles; whether it is known by this name or not, the chances are that it is happening at your school.

What is it? Put simply, posting a photo or video of yourself alongside the hashtag #roastme and thereby inviting friends and strangers alike to tease you for it. Harmless banter… after all, they literally asked for it? Or something more nefarious?

We mustn't forget that one person's teasing is another's bullying, and the same words can always have a different impact on us depending on who said them; these things can quickly spiral out of control, and sometimes people don't actually post the photo in question but 'volunteer' others.

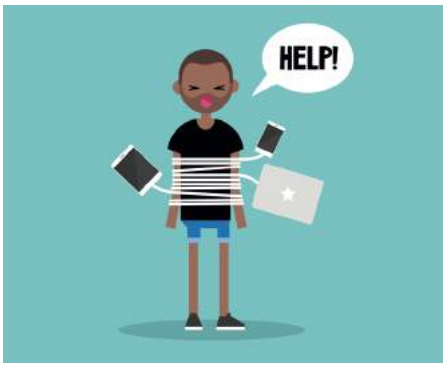
Asking to be roasted is clearly harmful and self-destructive in some cases (psychologists have likened it to self-harm where the user really is seeking abuse).

So what to do? Whether you use this half-baked term (pun very much intended) to talk about the issues or just think about all the instant social media putdowns we are all partial to now and again for a laugh at others' expense, the issues are the same.

We could do worse than encourage young people to stop and ask the perennial self-reflective question "how would it make me feel?". Even if 'they asked for it' – literally.

For signposts to resources and organisations that help schools and families with bullying issues:
bullying.lgfl.net

For blogspots like this:
safeblog.lgfl.net



ONLINE SAFETY PORTAL, FEATURING:

- Sexting / Messaging
- Templates for school policies and agreements
- Official documents / guidance
- Parental engagement
- Support, resources and signposting for themes including
  - Livestreaming
  - Gaming
  - Sexting
  - Grooming
  - Bullying
  - Radicalisation
  - Body image
  - Pornography
  - Fake news

…and many more

Visit the LGfL online-safety portal os.lgfl.net

GETTING IT WRITE!

Do you constantly hear some children say "I hate writing!" "Writing is boring!" or "Writing makes my hand hurt!"? Are there learners in your classes who struggle with handwriting, spelling and/or grammar? Ones who find a blank page intimidating? There are many young people who struggle to get their ideas onto paper for a range of reasons. WordQ SpeakQ software is available through LGfL and TRUSTnet at no additional cost and can help your reluctant writers express themselves more effectively and with confidence.

GETTING STARTED

Late in 2016, Sarah Davey, a year 6 teacher and ICT coordinator at Tubbenden school in Bromley, came along to an LGfL SEND training course for some ideas for her reluctant writers. She had a few learners with dyslexia in her class and was keen to help children like these write to their potential. Many of them had ideas; it was just a case of getting them on paper. That day, Sarah learnt about WordQ SpeakQ and how it can be used to facilitate young writers. Eager to try it out, she went back into school the next day, installed it on her laptop and introduced it to a few boys in her class.

BENEFITS

The improvements in the writing of some of her learners was incredible. They were producing more extended pieces of writing, were gaining in their self-esteem and were developing the motivation to write.

> "WordQ SpeakQ builds confidence by the bucketful. It removes the frustration that writing can sometimes bring."

Tubbenden staff have now used

WordQ Speak Q across the school and Sarah has used it with learners from 2 successive year 6 classes. Staff have noticed a wide range of benefits for children, all depending on the learning needs of the individual. Sarah reports that a " larger volume of writing becomes easier to produce, writing becomes legible and unmuddled, children can read it back to themselves with ease and can edit learning very easily". She finds that learners are able to retain the flow of writing as they are not worrying about spellings or punctuation and they are also supported with word recognition. The software was also found to support a successful thought process when choosing word suitability. One of the biggest benefits that staff have witnessed has been the confidence that learners are building in their writing. Sarah feels they have no fear of being wrong now when they write and that they are braver in their vocabulary choices than they had been.

> The software allows children opportunities to use language they'd perhaps otherwise be afraid to use.

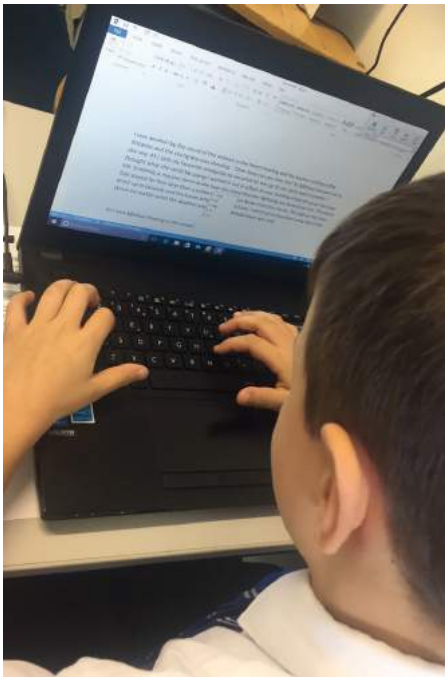
Sarah reports that the learners pick the software up very easily and that as a teacher, WordQ Speak Q enables her " to address the next stages of learning more appropriately because as teacher I can see what the learning focus needs to be".

MORE ABOUT WORDQ SPEAKQ

WordQ SpeakQ is an easy to use literacy tool which includes Word Prediction, Speech Recognition and Spoken Feedback. It is available to install at no additional cost to all LGfL and TRUSTnet schools and once installed, the WordQ SpeakQ toolbar will appear which can be used online or offline on any programme, wherever a young person can type.

AT HOME

Parents of year 6 learners have also been amazed at the progress and confidence that their children have had with their writing since using WordQ SpeakQ:



> My son showed tremendous progress using the WordQSpeakQ software alongside having Mrs. Davey as his year 6 teacher. We watched him improve in leaps & bounds.

SECONDARY SCHOOL USE

A number of London Secondary schools are also looking into using this technology and other solutions with their learners and some are kindly working with LGfL to provide clear support on how such technology can potentially be used in exams. Secondary English staff and SEN staff who attended recent WordQ SpeakQ training sessions report clear potential benefits for many of their students and were particularly interested in utilising the personalised word bank features to support targeted vocabularies when teaching different topics across the curriculum. A number of Secondary schools are currently piloting this software with small numbers of their students.

TRAINING

Many staff from London Secondary and Primary schools recently attended half day courses in Autumn 2017 dedicated to understanding WordQ SpeakQ and 100% reported the highest levels of interest and relevance in

the software following the sessions. They commented that "this is easy to use software" and "is a really helpful tool for students across the board". Further training on this software will be arranged in 2018 and can be viewed via www.training.lgfl.net or local requests can be made using send@lgfl.net.

CHALLENGES AND SUGGESTIONS

Tubbenden School has experienced some challenges in implementing WordQ SpeakQ such as staff training, the availability of hardware and the use of the software on other devices. Many of these have been overcome by using strategies such as pupil trainers and touch typing classes and LGfL and its providers are currently looking at refining network installation and the use of software on other devices. When using WordQ SpeakQ, Sarah suggests:

> Show the children how the programme works - use simple terms, then let them use and experiment. They will have success very quickly. Within a few sessions confidence becomes much increased with the programme itself and in writing.

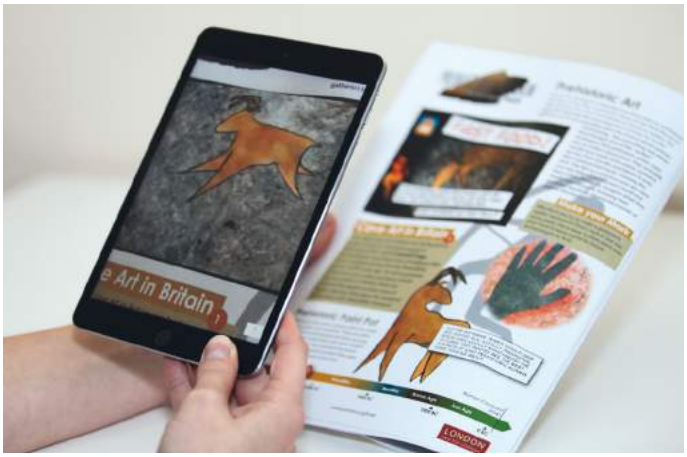
MORE ABOUT USING WORDQ SPEAKQ

Please go to the SEND pages of this booklet or www.wordqspeakq.lgfl.net for more information.

MIXED REALITY

MOVING BEYOND THE WOW FACTOR...

Sometimes it's enough of a struggle to keep up with our standard reality, never mind enhancing it with augmented or virtual reality. So what role does AR/VR have in everyday learning and why does LGfL keep investing in these leading edge technologies?



Choosing the right technology to use in the classroom is fraught with issues. Many times as teachers, we are presented with something that surely must be worth using. But then...
How many schools have voting handsets tucked away somewhere in a store cupboard, or a class set of PDAs?
Many of these technologies and approaches have genuinely fantastic and enthusiastic cheerleaders with positive case studies to match.

However, the educational landscape is littered with technologies and software that promised much but delivered little.

So when asked to innovate with technology, a careful strategy is needed to ensure it doesn't eat that precious budget, all for limited impact.

WHY AUGMENT? Why virtualise our surroundings?

Augmented and virtual reality technology could easily fit these descriptions.

They both continue to have the wow factor, and the ever decreasing price of tablet and headset devices and infrastructure required are no longer barriers to presenting this in schools.

But while it isn't hard to produce a 'wow', the question remains: why bother?

In LGfL TRUSTnet's Prehistoric Britain, an extinct virtual Megaloceros Giganteus (Giant / Irish Elk) appears before the student's eyes and walks around the page (or your hand, if you shrink the trigger image).

Any teacher who witnesses the reaction will attest to the undoubted wow factor. The appearance of the animal on the page has far more impact than a static image.

It disrupts the standard pedagogy and creates a powerful learning experience. The animal is not in isolation, but interacting in full context within the materials.

> **“ It disrupts the standard pedagogy and creates a powerful learning experience. ”**

It is this cognitive attractor that separates the use of AR like this from the standard use of the technology, which is invariably wow-only. The most recent Roman Virtual reality experience places the viewer on Hadrian's Wall as a centurion keeping out the Picts who periodically whizz an arrow past your head as you stand guard. Such experiences can not be created through any other technology and we are starting to see improved learning outcomes as direct result of the use of 'mixed' reality.

Our rigorous editorial process ensures all resources enhance effective teaching and meet curriculum requirements. But best-practice use of augmented reality requires the development and application of further principles.

Central to this is the concept that AR and VR are only used to show or demonstrate something that cannot be seen or experienced without it.

This avoids the obvious pitfall of creating objects that merely look 'cool'. A Megaloceros Giganteus is extinct, so pupils could not experience it in any other way.

But of course, this must be coupled with subject and curriculum context. If there is a disconnect between the experience and the curriculum, then the potential for immediate learning is lost, and perhaps more importantly, the desire to learn can disappear.

BEHIND THE SCENES

AR is a simple concept. A model, video, sound or image (or a combination) is shown overlaid on the real world.

This is achieved via the camera lens of a mobile device and shown on the screen. The effect is generated by programming the tablet to recognise a 'trigger' or 'tracker' image.

The tricky bit is to maintain the illusion as the device is moved around, leaving the 3D object still in place. With recent innovations such as apples ARKit, the line between augmented and virtual reality is blurring, bringing new experiences to classroom environments for everyone.

WHAT NEXT?

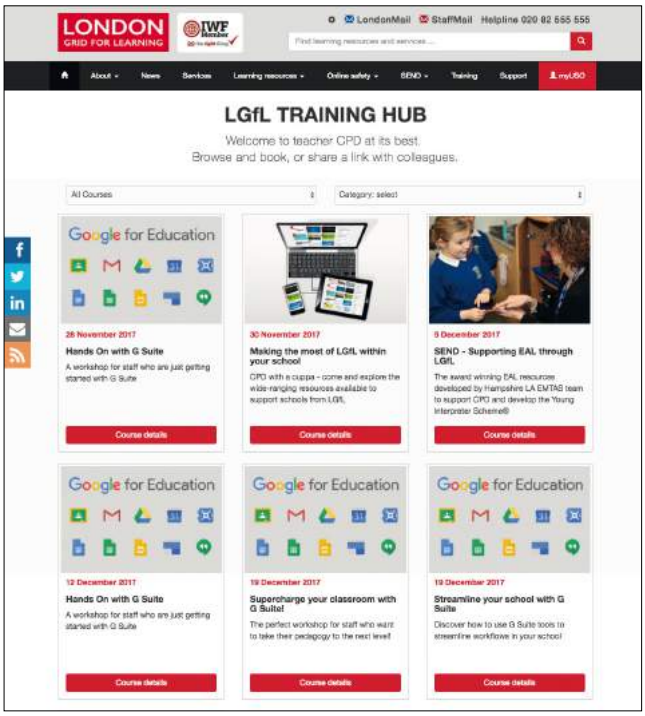
The future is unpredictable but exciting. But one thing is clear: thousands of pupils are already being engaged and drawn into deep learning by using augmented-reality resources from LGfL TRUSTnet.

What's more, 2018 sees further investments at LGfL in mixed (augmented + virtual) reality. Get real? No thanks.

prehistoric.lgfl.net
maya.lgfl.net
ww1.lgfl.net
coldwar.lgfl.net
egypt.lgfl.net
sigurd.lgfl.net
romansxr.lgfl.net

LGfL TRAINING HUB: CPD AT ITS BEST

Since its launch in September 2016 more than 600 teachers have benefitted from a range of continuing professional development programmes. The aim of the cross-curricular programme is to support teachers in the effective delivery of their curriculum areas through the use of technology and LGfL resources.



The training is delivered by a variety of LGfL trainers – all with an extensive and varied teaching background, and often curriculum specialists who have helped create LGfL learning resources. Trainers have an extensive understanding of the latest curriculum challenges and developments, and are experts in the effective use of LGfL resources to raise attainment and achievement for learners in a variety of school contexts.

Training for teachers in the use and deployment of both Google and Microsoft have also featured within the training programme this year to enable teachers and school leaders to use the tools and technology that is right for them within their own school environment.

The majority of training takes place at the Camden City Learning centre, a location chosen for its central london location and school-focussed facilities.

However, thanks to our wider range of development partners, we have also been able to provide training at both Microsoft and Google headquarters in London as well as hubs in North East London working with Leyton Orient Trust.

Courses are delivered in small groups, ensuring that attendees receive a high quality, responsive and relevant experience. Courses are delivered over a full day, half day, hour INSET sessions and also through webinars ensuring the training meets the needs of teachers throughout the year.

To ensure that as many teachers can attend as possible, all training is provided at no additional charge within the existing LGfL/TRUSTnet service.

Events are repeated if they are particularly popular or offer guidance that is regularly updated such as online-safety and social media training.

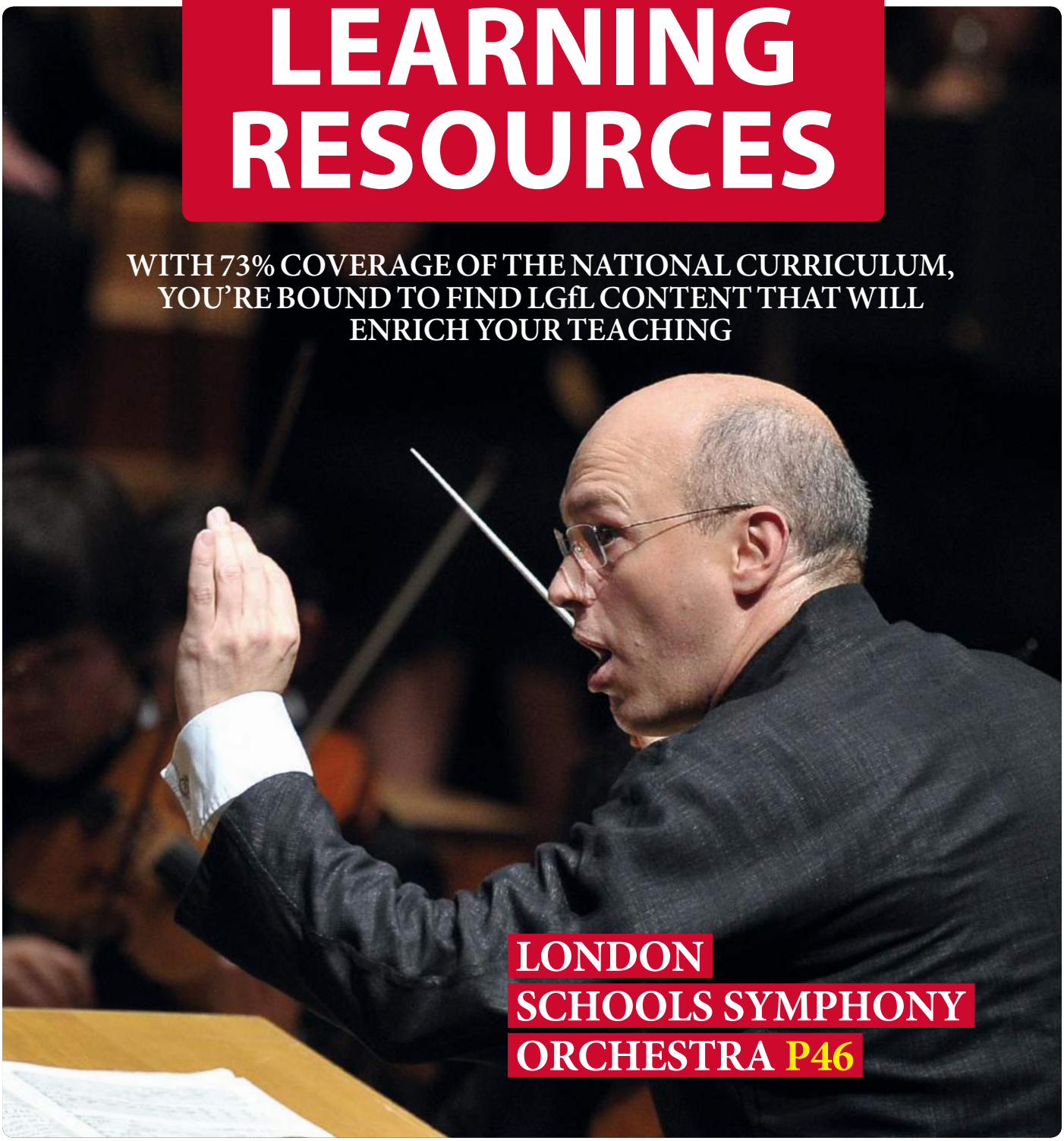
All CPD courses are flexible and tailored to the needs of those who attend. We always make sure that 'hands-on time' is planned into the day so that teachers have time to explore themes and resources with experts on hand to guide and answer questions throughout.

Why not visit the training portal today to see how your school can make the most of this excellent service enhancement? Supercharge your use of LGfL resources to boost achievement and attainment in your school.

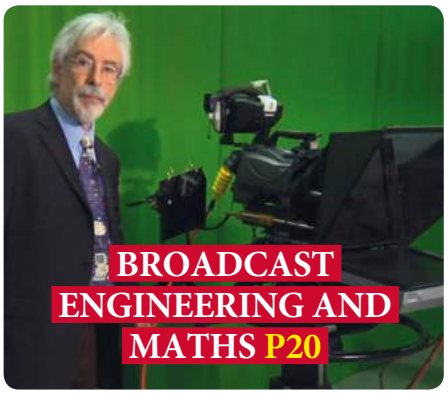
training.lgfl.net

LEARNING RESOURCES

WITH 73% COVERAGE OF THE NATIONAL CURRICULUM, YOU'RE BOUND TO FIND LGfL CONTENT THAT WILL ENRICH YOUR TEACHING



LONDON SCHOOLS SYMPHONY ORCHESTRA P46



BROADCAST ENGINEERING AND MATHS P20

EMPLOYABILITY P42

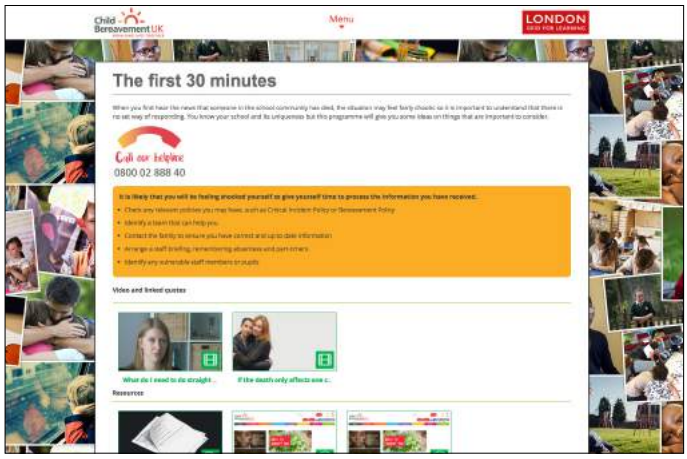
GROWING UP AROUND THE WORLD P25

THERE'S MORE! TURN OVER FOR MORE LEARNING RESOURCES FROM LGfL

MANAGING A SUDDEN DEATH IN THE SCHOOL COMMUNITY

Guidance for schools, particularly senior managers, when supporting bereavement in a school community.

Child Bereavement UK
REBUILDING LIVES TOGETHER



Grief is a normal and natural response to loss, yet how pupils are supported can have significant impacts on long term outcomes.

Young people tell us that how their school responds is something they never forget. This resource aims to provide an accessible support gateway to the effective response to death within school community. Simple, short guidance through quotes, external inks and video interviews with experts helps provide the information you need at the right time to ensure the whole school community can work together to support each other.

Child Bereavement UK are experts in supporting schools within the context of bereavement within a school community.

Through their work they have identified some of the key barriers for schools in responding appropriately and quickly to the needs of those affected by a bereavement.

By working in partnership with LGfL, this open access portal has been designed to bring the key information in both a video and text format with a quick and accessible interface.

There are two ways in which this resource has been designed to be used:

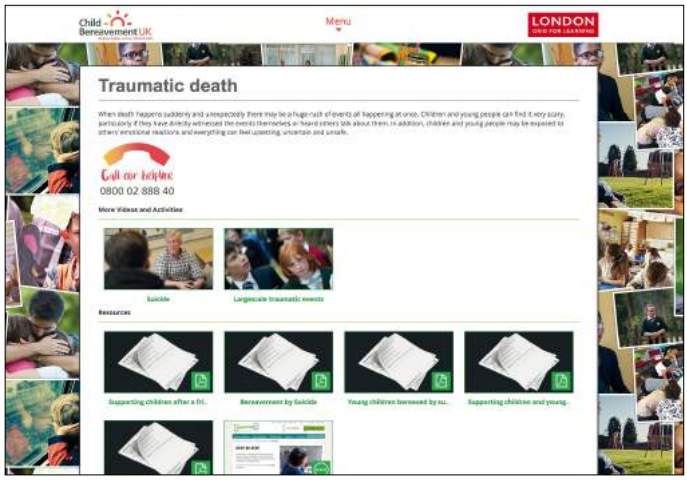
- General Staff CPD – raising staff awareness.
- Use in time for need

Support Gateway includes:

- The first 30 minutes
- Breaking bad news
- Supporting a bereaved family
- Supporting the school staff
- Traumatic deaths
- Social media and media relations
- Looking to the future

Video clips, information packs and external links are provided for staff to deliver comprehensive support including a range of approaches to use in different scenarios in schools such as assemblies and staff CPD contexts.

bereavement.lgfl.net



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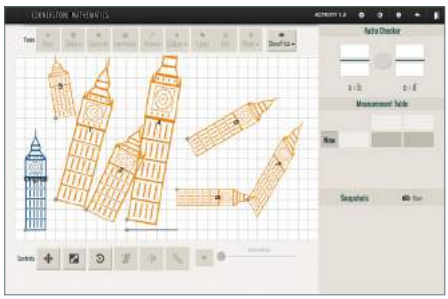
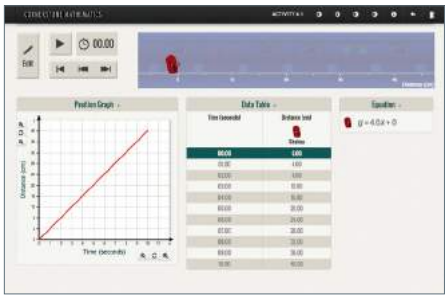




CORNERSTONE MATHS

This unique Key Stage 3 Maths content with embedded CPD is the product of several years' pan-Atlantic research and classroom testing by leading university academics.

Cornerstone Maths was developed over the course of five years by an international team of experts based at the UCL Institute of Education and Stanford Research Institute International.

The resource includes three web-based digital units of work for Key Stage 3. These are aligned to the National Curriculum and use dynamic visualisations, such as tables, graphs and animations, to help children grasp difficult mathematical ideas in new ways.

The materials were initially proven in over 125 secondary schools before being launched via LGfL TRUSTnet.

The units of Maths are linear functions, geometric similarity, and patterns & expressions.

Each unit has a detailed pupil book, teacher book and teaching guide.

Cornerstone Maths includes online CPD materials embedded within the resource, but there are also face-to-face sessions held as part of the LGfL Training Hub (see training.lgfl.net). These give teachers further opportunities to embed best-practice.

Schools that engage with Cornerstone Maths benefit from high-quality professional development, and use specially-designed classroom materials to complement the digital tools, supporting wider school-based scaling and sustainability.

cornerstonemaths.lgfl.net
csmathsmaterials.lgfl.net

> "There was a distinct demarcation in my Year 8 class between those who had learned with Cornerstone Maths and those who hadn't. Retention a year on was significantly better than a class who had done similar work from a textbook."

Liz Gould, Ormiston Bushfield Academy, Peterborough

BROADCAST ENGINEERING & MATHS

There is a lot more to the world of TV broadcasting than a B-list celebrity and a cameraman. This engaging introduction to the engineering and maths involved shows pupils how Eastenders can only go out on time if everyone gets their calculations right.

LGfL created Broadcast Engineering and Maths in partnership with experts at Ravensbourne College, as a series of 'Maths in a real-world context' lessons.

The fast-moving broadcast industry is very appealing for young people, so demonstrating the relevance of classroom Maths in this area can be a powerful tool for teachers.

There is a series of four lessons in the resource, each with video clips of experts on location explaining how the technology works, plus extensive teacher guidance, lesson plans and student worksheets.

TV SCHEDULING

The first lesson asks pupils to set a TV schedule and present it to their peers.

Differentiation makes this activity ideal for all learners: students may simply allocate programmes to time slots; they might use time placement to maximise viewing figures; or even target a certain advertising yield per viewer.

SLEEPING SATELLITE

It seems strange to think that the picture we see on our screen could have travelled thousands of miles. But how?

'Satellite Maths' includes Pythagoras, Circle Theorem, Speed-Distance-Time, and Standard Form.

TRANSMISSION IMPOSSIBLE

This resource uses map loci and construction (with different scales) to work out the signal coverage of a fictional set of TV transmitters.

SIGNALS AT THE CORE

Why do we sometimes not receive a TV signal? Unfortunately, data degrades with distance. Find out why.

broadcastmaths.lgfl.net

TV scheduling

Pupils are asked to be a TV scheduler for a day, firmly putting to bed the myth that you don't need Maths in the real world.

Satellite signals

Unlocking the maths behind satellite signals – how do they travel from one point to another?

Broadcast transmitters

Using scales, loci and construction to work out the signal coverage of a fictional set of TV transmitters.

TV signal degradation

Graphs for visualising the maths and science behind data traffic, and how data degrades over distance.

VIRAL CONTAGION MATHS

Investigating the real-world maths behind an outbreak of a viral epidemic in an urban area, and the unpredictable impact of changing infection rates.

Viral Contagion has unfortunately been regularly topical over the past few years, as SARS, bird flu, swine flu and Ebola grabbed headlines and caused deaths around the world.

This resource uses fictional news reports to describe the impact of a virus spreading across London, considering the maths behind an outbreak.

The collection of four differentiated standalone lessons provides an engaging, challenging focus for KS3 & 4.

Each lesson features high-quality dramatised video scenarios, computer models, interactive-whiteboard resources, and full teacher guidance.

OUTBREAK SUSPECTED
What would happen if a contagious virus broke out in London? What are the infection rates and population totals?

OUTBREAK CONFIRMED
The situation has deteriorated. Initial tests show that the virus is airborne. What should your next steps be?

AIRBORNE AND CONTAGIOUS
We now know you are infectious for one week after initial contact with the virus.

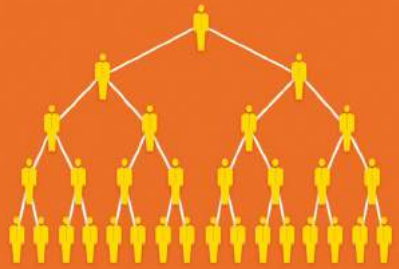
SIX MONTHS ON...
The virus has passed. What are the lessons learned?

viralcontagion.lgfl.net

4 RESOURCE LESSON PLANS

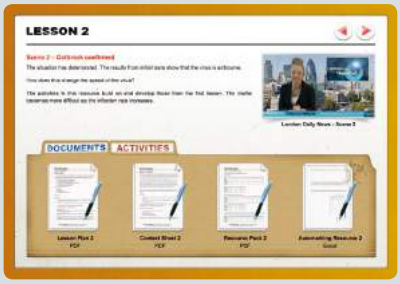
Each lesson includes differentiated teaching material to encourage students to get 'in role' and think through the impact of infection rates that change from day to day.

Plus special *making-of* feature .

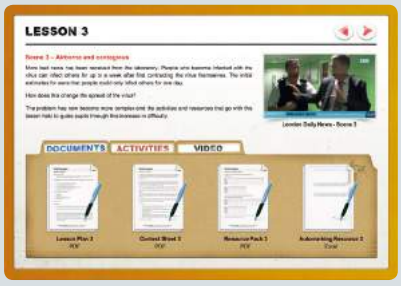


Lesson 1 – Outbreak suspected

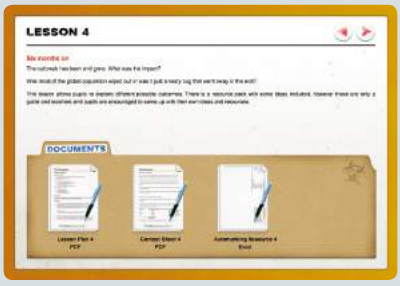
Lesson 2 – Outbreak confirmed



Lesson 3 – Airborne and contagious



Lesson 4 – Six months on



SEARCH AND RESCUE

Maths can sometimes be a matter of life and death. This exciting new resource, made possible through direct partnership with the UK Maritime and Coastguard Agency, shows pupils exactly how and why.

Featuring exclusive footage of real-life rescues at sea, lifeboat and helicopter searches, and rescue coordination at the National Maritime Operations Centre, pupils can see mathematical problem-solving in action – real life, with real consequences.

Much more than a series of exciting, attention-grabbing videos and images, the resource is extensively mapped to the National Curriculum and includes detailed lesson plans and resources to enable pupils to apply their skills in context, solving problems for themselves.

Featuring comprehensive and differentiated support materials, topics covered include Bearings, Pythagoras

> “Problem-solving has never been so real and so relevant.”

and Trigonometry, Algebra, Vectors and Speed, Distance and Time.

Some topics also include online interactive assessments, built within the LGfL Assessment Maker. Students can complete these on any internet-enabled device to receive immediate feedback on their understanding.

The online assessments are designed to help teachers and students identify possible misconceptions and gaps in the required knowledge.

Pupils may sometimes question the excitement or relevance of plotting an accurate triangle and calculating its sides, but what if the three points are a helicopter, a lifeboat and a sailor in distress, with only minutes left to save a life?

www.sar.lgfl.net

Learn about the people behind a multi-vessel coastguard rescue and their different roles. Use scenario-based lesson activities to apply complex mathematical concepts and problem-solving skills to real-world rescues.

Helicopter paramedic and winchman
His judgement is critical to securing an effective rescue.

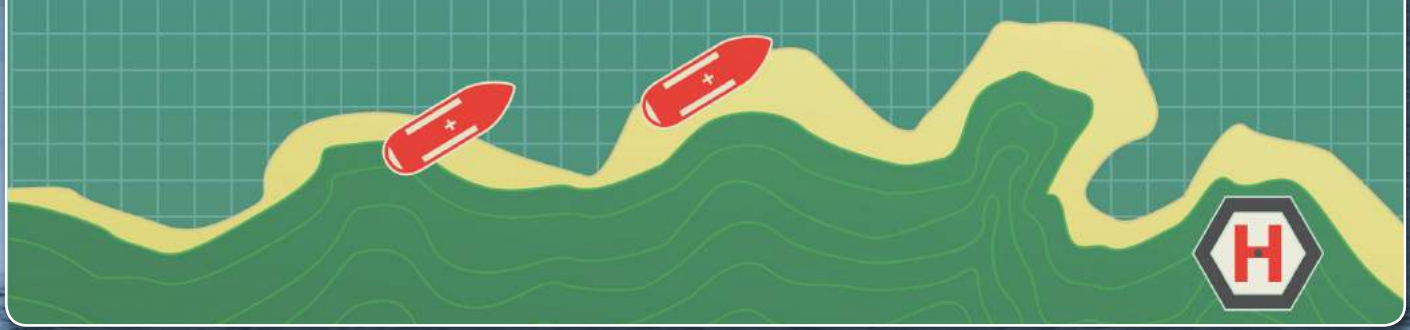
HM Coastguard ops staff
Integrated computer systems help support critical decision-making at sea and in the air.

Helicopter pilots
These experts have to take many factors into account for rescue missions in all weather conditions.

Rope mechanics
Understanding the principles of Physics and Maths is essential for successful rope-based rescues.

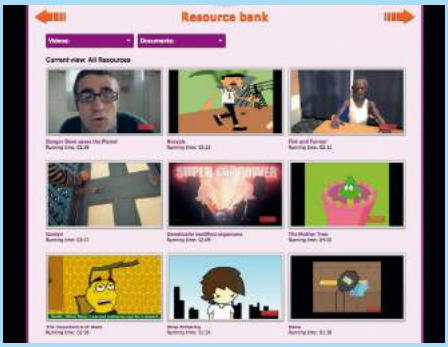
Rescue calculations
No two rescues are the same, but strict procedures must be followed at all times.

Coastal rescue teams
The maths behind specific 'rescue systems' are explored within problem-solving scenarios.



TVE RELAY – INSPIRING CHANGE

Environmentalism always starts in the local environment. Get your students talking on camera about the issues that affect them; then hand on the baton in the tve relay.



From overfishing to battery recycling, from the extinction of species to gardening, tve relay gets to the heart of the environmental problems troubling the policymakers of tomorrow.

22 young people from across the world made the original videos about issues of concern to them. These clips were created by a relay, where each filmmaker selected the next one.

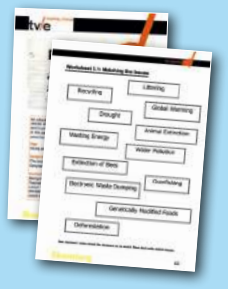
The footage and accompanying five lesson plans are relevant to the curriculum in their own right, but London schoolchildren are now encouraged to take up the challenge of creating their own film to convey a personal message about the environment.

The LGfL VideoCentral HD service can be used to share London-based video creations; suitable videos from London schools will be added to the relay resource in future.

tverelay.lgfl.net

> “It is great that young people in London can explore some of the key challenges and threats facing our precious planet today, through the creativity of filmmakers and animators around the world.”

Cheryl Campbell, tve Executive Director



GROWING UP AROUND THE WORLD

Eleven lives, eleven stories, eleven dreams, eleven countries... one life cut short! What's it like growing up around the world?

Over more than two decades, charity tve followed the lives of 11 children in 10 different countries to make a series of groundbreaking films.

A precursor to the BBC's "Child of our Time" series, this resource provides a unique insight into what it means to grow up in different parts of the world; the challenges, hopes and dreams of the 11 children and the impact of the world around them.

Growing up around the World aims to help UK children understand the realities of childhood in different contexts. Strikingly, many of the struggles and challenges the children encounter are universal, from the UK to South Africa to India.

Designed for use in Citizenship, PSHE or Geography lessons, the videos introduce Key Stage 2, 3 and 4 pupils to human rights, building an understanding of the issues facing people around the world, specifically regarding education.

These are real stories, including poverty, unemployment and death, so this resource aims to provide schools with a safe space in which to tactfully address these complicated issues.

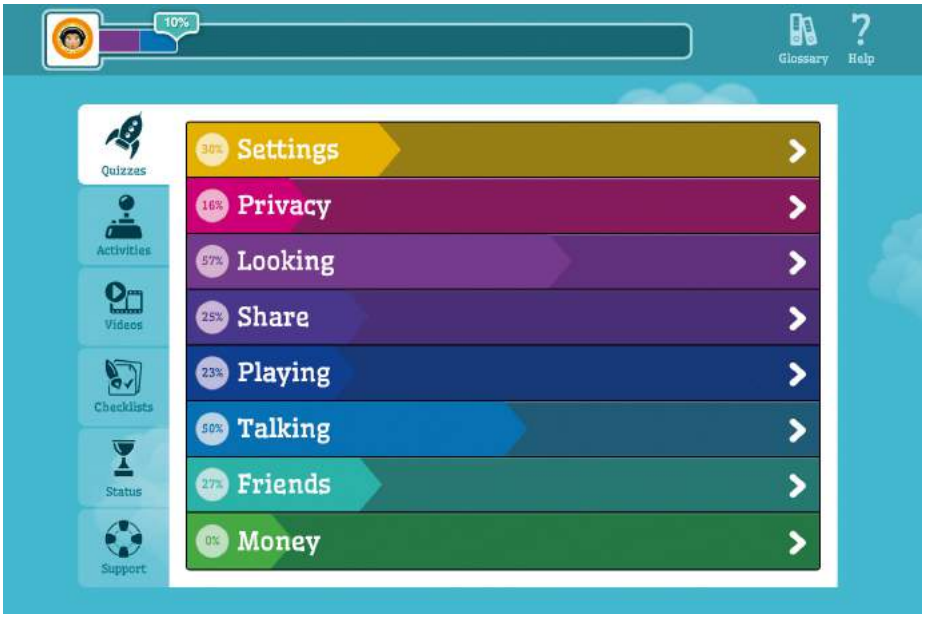
Particularly useful in multi-cultural London classrooms, the resources come with a comprehensive teacher pack with full lesson plans, starter activities, sample worksheets, a dictionary of key terms and tips for expanding on the material provided in the resource.

This also includes ideas to help pupils get involved with human rights and take action about issues they are passionate about, through social media campaigns, blogging, organising debates, petitions and writing to decision makers.

growingup.lgfl.net

CYBERPASS

LGfL is providing teachers with a trackable, data-rich, competence-based online safety assessment and training tool, but at the heart of this innovation is a new approach.



CyberPass embodies a new approach to online-safety education, turning the conventional wisdom on its head on how to tackle this key topic.

It presents the flip-side to traditional lesson sequencing: rather than delivering a series of lessons on predefined topics and then testing pupils on their abilities, CyberPass helps teachers identify strengths and weaknesses in the first instance, in order to target time and resources on the topics children really need support with.

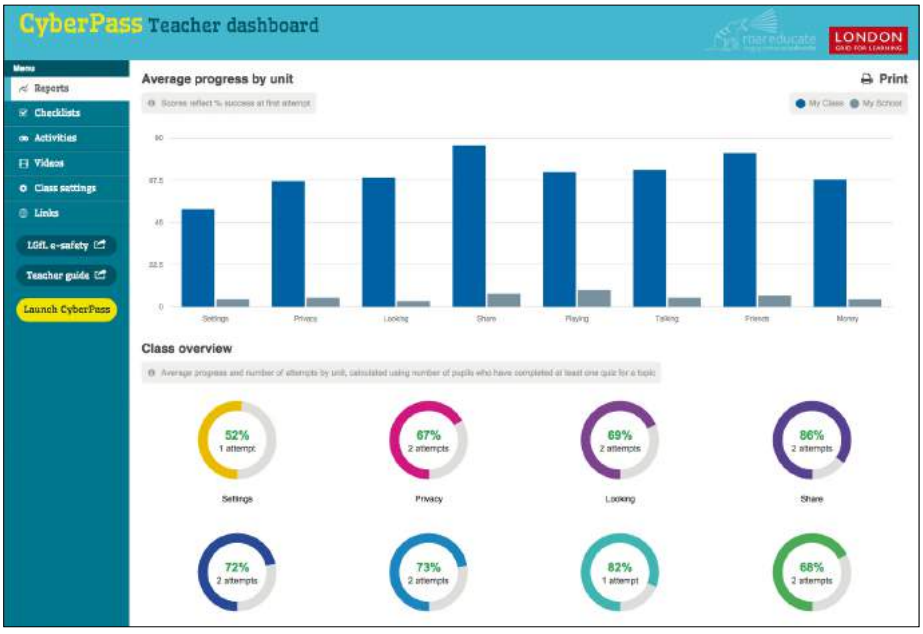
Students take a quiz on one or all of the eight key online-safety themes, then teachers view the rich data on pupil performance broken down by theme, competence, and/or question, before tailoring and differentiating their teaching accordingly for this time-pressured, important curriculum area.

There are also videos and interactive lesson materials tailored to the eight themes that teachers may choose to use.

LGfL has long been at the heart of the online-safety agenda, protecting children with cutting-edge network and security features. We also provide help, advice and resources for the classroom.

CyberPass is part of our response to the rapidly-changing landscape and teachers' needs, as they are tasked with producing and safeguarding the next generation of digital citizens.

cyberpass.lgfl.net



WHY CYBERPASS?

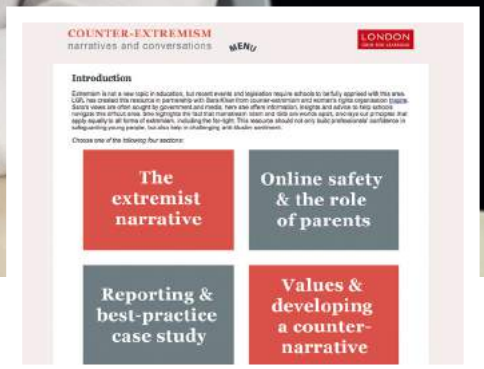
CyberPass can be accessed anytime, anywhere; it can be approached in various different ways; and the built-in resources can be used or disregarded – the teacher can decide.

But what makes it unique is the ability to take a snapshot of learners' competencies and knowledge before and after teaching time.

Sara Khan and Matthew Goodwin's views are often sought by government and media; they offer information, insights and advice to help schools navigate this difficult area

Sara Khan from counter-extremism and women's-rights organisation Inspire

bett AWARDS 2016 FINALIST



COUNTER-EXTREMISM

Empowering teachers to address one of the most sensitive yet important school duties.

'Counter-Extremism: narratives and conversations' is a video resource designed to enable and empower teachers to discuss and respond to conversations about extremism.

Initially launched in time for the enactment of the Counter-Terrorism and Security Act 2015, it has already been put to good use thousands of times across the United Kingdom in schools, community centres, council offices and homes.

The new act made schools "specified authorities" with the duty to "have due regard to the need to prevent people from being drawn into terrorism".

This presented a significant challenge for schools, where concerns were raised about lacking expertise for dealing with this sensitive issue, coupled with the potential to damage relationships with pupils and parents.

Headlines such as "Anti-terror plan to spy on toddlers" only served to increase unease amongst professionals.

Against a background of teachers eager to 'do their bit' but wary of the consequences, LGfL created this online CPD resource for teachers and other professionals working with young people. Given the importance of the subject matter to schools across the UK and beyond, it was decided to make it open-access for all schools to use.

Matthew Goodwin, extremism expert at Chatham House and the University of Kent

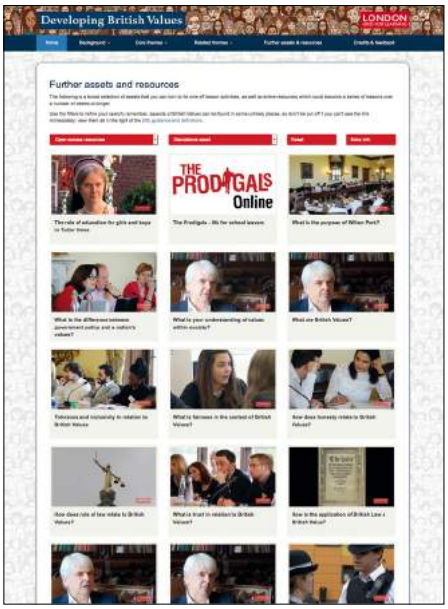
The existing ISIS section with Sara Khan from counter-extremism and women's rights organisation Inspire has now been complemented by a series of videos on the far right, voiced by Matthew Goodwin. Matthew is a Professor of Politics at the University of Kent, and Associate Fellow at Chatham House.

The resource takes the form of 32 question-based clips spanning four thematic sections and two forms of modern extremism, with questions such as "Why do certain groups of young people engage with the ISIS narrative?", "What can we say to young people who think all immigrants are bad?", and "What is the most important message about Islam that counters the ISIS viewpoint?".

counterextremism.lgfl.net

DEVELOPING BRITISH VALUES

High-quality, safe and relevant materials that foster understanding and informed debate amongst young people on issues that are hard to address in the classroom.



'Developing British Values' is a video and discussion resource which aims to meet a clear need in the education sector: supporting schools with the DfE requirement to "promote fundamental British Values as part of SMSC" across the curriculum and throughout the life of a school.

Since 2014, this has been a statutory requirement, yet many teachers and senior leaders felt that guidance was lacking beyond the official document.

LGfL's new resource brings together experts from different fields who share their thoughts on what British values mean in the real world, and provide thought-provoking discussion points for teachers and students.

British Values can mean very different things to different people. This presents particular challenges for busy teachers, who may be unfamiliar with some of the issues involved.

British Values can mean very different things to different people. This presents particular challenges for busy teachers, who may be unfamiliar with some of the issues involved.

So how should a school approach this subject?

This resource does not aim to provide a set answer to the question, or indeed a simple definition for teachers and students to learn and regurgitate (although several are stated).

Rather, the aim is firstly to show pupils what British Values mean to key players at the cutting edge of international diplomacy, equal opportunities, education and culture; and secondly, to kickstart discussion.

In this way, we can help the young people of today to form balanced opinions that will inform the decisions and values of tomorrow.

bv.lgfl.net

REAL VOICES

The sad story of Alan Kurdi, the three-year-old Syrian whose lifeless body washed up on the Turkish coast, made the world sit up and pay attention. But what next?

Immigration has always been an emotive topic; the events of the last couple of years, with millions of people on the move and thousands dying at the mercy of the waves, did little to help.

Emotions run high on all sides of the argument, but LGfL recognises the importance of giving schools the resources they need to enable sensible discussion in a child-friendly way.

> **“Syria is my soul, my country, my life, my land, my past and my present... It was the most difficult decision of my life.”**

Real Voices lends a human face to the crisis, telling the story of three Syrian refugees currently sheltering in Jordan.

In their own words, they tell of the pain of leaving their homeland and the difficulties faced in their host nation.

Although the videos are powerful in their own right, lesson plans, assembly resource and glossary give context and curriculum relevance, and help teachers tackle the crisis in a sensitive manner.

realvoices.lgfl.net

THE PRODIGALS ONLINE

The Prodigals Online has been produced to engage, educate and empower young people to confidently face the challenges and opportunities of independence and adulthood.

This innovative resource supports Key Stages 4 and 5 school-leavers as they seek to secure an independent life.

The resource is based on a film featuring a cast of characters experiencing the ups and downs of living away from home for the first time.

The film can be viewed in one 40-minute sitting, but is also edited into short thematic sections to link in with the teaching materials on different developmental issues.

The resource supports these areas:

- Personal Learning & Thinking Skills
- Behaviour for Learning
- Sex and Relationship Education
- Social & Emotional Learning

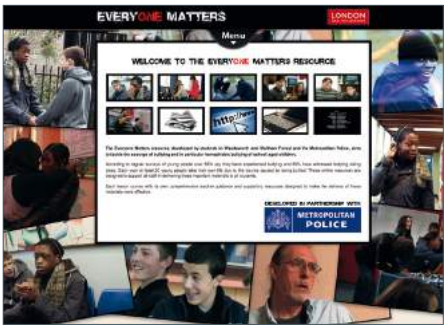
The soundtrack to the Prodigals Online includes three music videos linked to the narrative of the film, and an album featuring performers such as Beverley Knight and Typah.

Use this comprehensive resource to engage pupils on a challenging topic with relevant, credible and authentic resources, and a London focus.

prodigals.lgfl.net

EVERYONE MATTERS

Everyone Matters challenges homophobic bullying and empowers teachers and students to challenge negative attitudes – in the classroom and beyond.



Everyone Matters is aimed at tackling the issue of homophobic bullying at Key Stages 3 and 4.

The resource uses video stimuli to provoke open discussion of the sensitive issues involved, and highlights that any kind of bullying is serious and can have grave consequences.

The footage features re-enactments of homophobic bullying scenarios acted out by students from London Schools.

> “Each year, 20 young people take their life due to the trauma of bullying.”

The curriculum materials were developed in partnership with the Metropolitan Police and staff and students from the London Boroughs of Wandsworth and Waltham Forest.

The videos, presentations, lesson plans and teacher guides can be used as a standalone lesson series, or to complement established anti-bullying schemes.

The sensitivities related to this issue are acknowledged and supported within the resources, which address issues of engagement and the social and emotional aspects of learning.

everyonematters.lgfl.net

ESPRESSO FAITHS

What better way to foster understanding of the six major world faiths than by seeing them through the eyes of London schoolchildren.

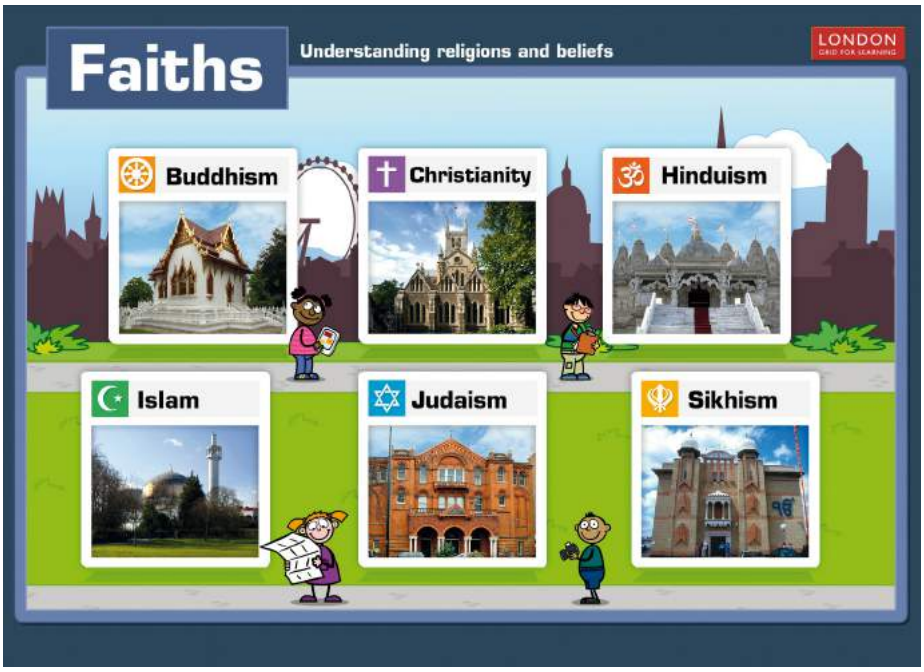
Commissioned by LGfL, Espresso Faiths looks at the six major world faiths as found in London communities, with schoolchildren explaining their faith to their peers.

Updated to ensure the closest fit with the curriculum, Faiths offers important support for the development of inter-faith tolerance and understanding across London.

Each of the six world faiths covered in the resource are described in detail, including origins, main beliefs and practices; each section includes videos, activities, fact-files, parables and more.

Ideal for Key Stage 3, Espresso Faiths also has new quizzes to test comprehension and reinforce understanding.

faiths.lgfl.net



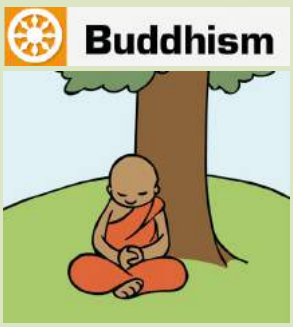
ACTIVITIES

IMAGES

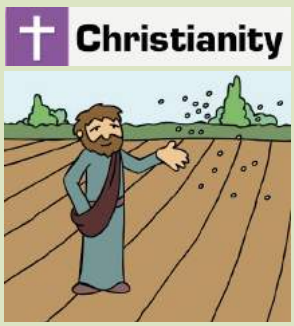
VIDEOS

All sections feature extensive videos, on-screen activities and downloadables, plus images, online books and factfiles

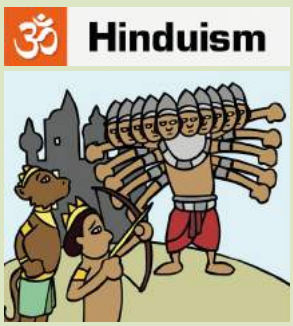
STORIES & PARABLES



The story of the Buddha

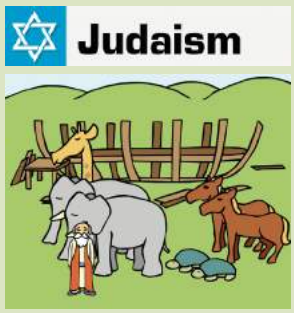


The story of the Sower and the Seed

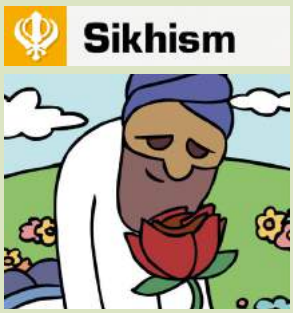


The story of Diwali

The story of the Crying Camel



The story of Noah's Ark



The story of the Rose

READINGZONE LIVE

How can you inspire reluctant readers to read, and reticent writers to write? That is the challenge behind this resource, which brings authors to the heart of the classroom.

If you ever wondered why there is no 'WritingZone' on LGfL, then you've missed a key part of ReadingZone.

Much more than a brief encounter with an author as a special treat or to fill the Word Book Day slot (although it fits very much in those categories as well), this resource is all about driving literacy.

The authors that take their place on the ReadingZone Live bookcase cover a multitude of genres, age ranges and styles, from Holly Webb's Secret Kittens and Tony Ross' Horrid Henry, through Henry Winkler's Hank Zipzer and Jacqueline Wilson's Hetty Feather, all the way up to Michael Morpurgo's Warhorse and Frederick Forsyth's Day of the Jackal.

> "The only difference between successful and unsuccessful writers is that unsuccessful writers stop!"
>
> *Author Antony Horowitz*

Teachers and pupils can take one of two approaches, focussing either on a particular author, or on a topic such as genre, planning, character, writing and so on.

Next it is time to hear from the authors themselves. Hours of interviews are distilled into bite-sized Q&A video clips, where advice is given to pupils on how to collect ideas, what to write about, how to form a story arc, what makes a good character, and much more.

Often the advice might seem to be common sense, but a 30 second clip from a bestselling author often has slightly more effect than a parent!

But at the same time, there are plenty of hidden gems as well – who would have thought that the key to Anthony Horowitz' success is the mid-morning Kit-Kat (other chocolate bars are available).

Ideal for starters and plenaries, the clips can be used as a standalone resource to spark a creative writing session or discussion within an existing lesson plan. Alternatively, they could easily form the basis for an entire lesson or series of lessons.

The curriculum materials have recently been refreshed and updated to include new topic pathways into the resource.

readingzonelive.lgfl.net

EARLY SHAKESPEARE

Early Shakespeare from SEN Assist is an innovative new introduction to the Bard for learners with SEND.

Underpinned by the many specialist principles behind interventions such as PECS and TEACH, Early Shakespeare is an animated, interactive learning tool, created by education experts for learners with SEND and EAL.

Shakespeare's stories are broken down into bite-sized portions, which learners can easily follow, understand and remember.

Animated characters bring each scene to life, with differentiated activities to help teachers include all learners. Pupils can watch the stories at their own pace, and turn the accompanying text and symbols on or off.

earlyshakespeare.lgfl.net

> "Children are so motivated by ICT. I just wanted to find a way to harness their interest to engage and include all children – no matter what their ability, language or learning style."

Adele Devine, SEN teacher and Director of SEN Assist

SHAKESPEARE PICTURE COLLECTION

Need quality Shakespeare images? As you like it! A collection of production photographs from a wide range of stage and film versions of Shakespearian productions.

The Cambridge School Shakespeare Picture Collection is a bank of collated production photographs from a wide range of stage and film versions of the Bard's plays and sonnets. The collection is designed to support students' exploration of interpretation, staging and performance.

Learners can select and annotate the images to create their own storyboards; they can read student notes on characters, themes, acts, productions and staging, and a variety of essay-style questions provoke further engagement with work they are studying.

Fully differentiated for the entire Secondary phase (up to Key Stage 5), each play also includes over 100 pages of editable, printable support materials, including lesson ideas, worksheets and production reviews.

shakespeare.lgfl.net

FIRST WORLD WAR – AUGMENTED REALITY

"They shall grow not old, as we that are left grow old. Age shall not weary them, nor the years condemn. At the going down of the sun and in the morning... We will remember them."

Teaching young people about the First World War is about so much more than ticking boxes and learning facts. Now that the last survivors have all passed on, we must find other ways to remember the lessons of 'The Great War'.

Augmented-reality (AR) comes into its own when breathing life into objects that no longer exist and situations which no-one can relate to at first hand.

From the haunting notes of Elgar floating over a 3D cenotaph, to the daunting sight of a Zeppelin over Hull, or a gramophone 'Last Post', this resource pays tribute whilst provoking thoughtful discussion of the First World War.

Originally produced in response to the centenary of World War 1, the augmented-reality artefacts generate genuine 'wow' moments for pupils, adding a brand new learning dimension.

Pupil engagement is consolidated by National Curriculum activities that focus on History, English, Music and Art.

The resource is ideal for embedding into existing lesson plans or for creating standalone new activities.

ww1.lgfl.net
Search *WW1 LGfL* on the appstore

DOWNLOAD TRIGGER IMAGES SEPARATELY FOR A TREASURE HUNT AROUND SCHOOL. ›

‹ USE THE APP TO MAKE THE AUGMENTED-REALITY OBJECTS LEAP OFF THE PAGE.

TRENCH EXPERIENCE

Ready to go over the top, Tommy? It's time for the Big Push, and you're going (head) first!

This innovative new virtual-reality (VR) app brings life in the trenches to life, and is ideal for History and English teachers covering World War 1 and trench life and warfare in general. The full immersion in the sights and sounds of the trench create the ideal stimulus for writing.

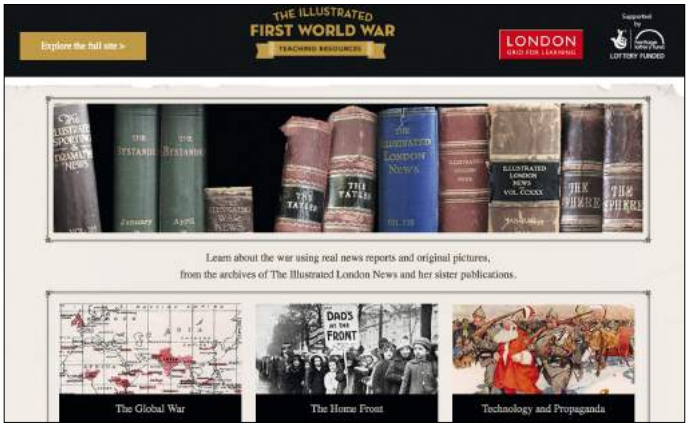
As LGfL's first foray into VR (not to be confused with the AR you have just read about), Trench Experience gives pupils an idea of what it would be like to move around a trench on 29th June 1916, in the rain, waiting for the call to go 'over the top'.

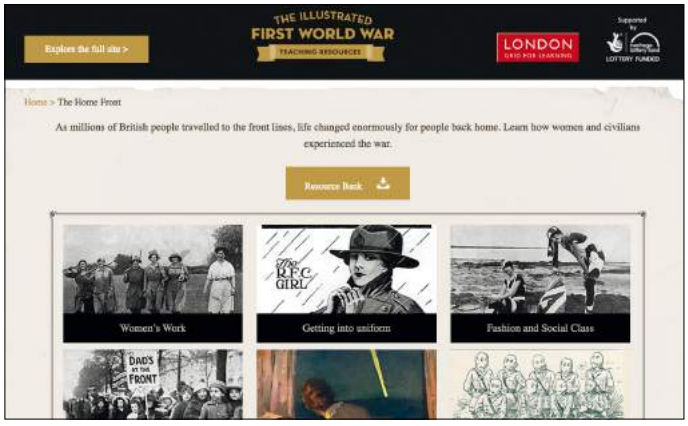
Walk around the trench, exploring and learning about the objects you see, and if you are brave enough, look up the trench periscope!

The accompanying worksheet and mp3 voiceover and sound effects provide background information to further build the atmosphere in the classroom.

The app plays on most modern smartphones with inexpensive Google Cardboard VR glasses (available for under £10), and needs headphones for the full immersive experience.

trench.lgfl.net





THE ILLUSTRATED FIRST WORLD WAR

A picture tells a thousand words…

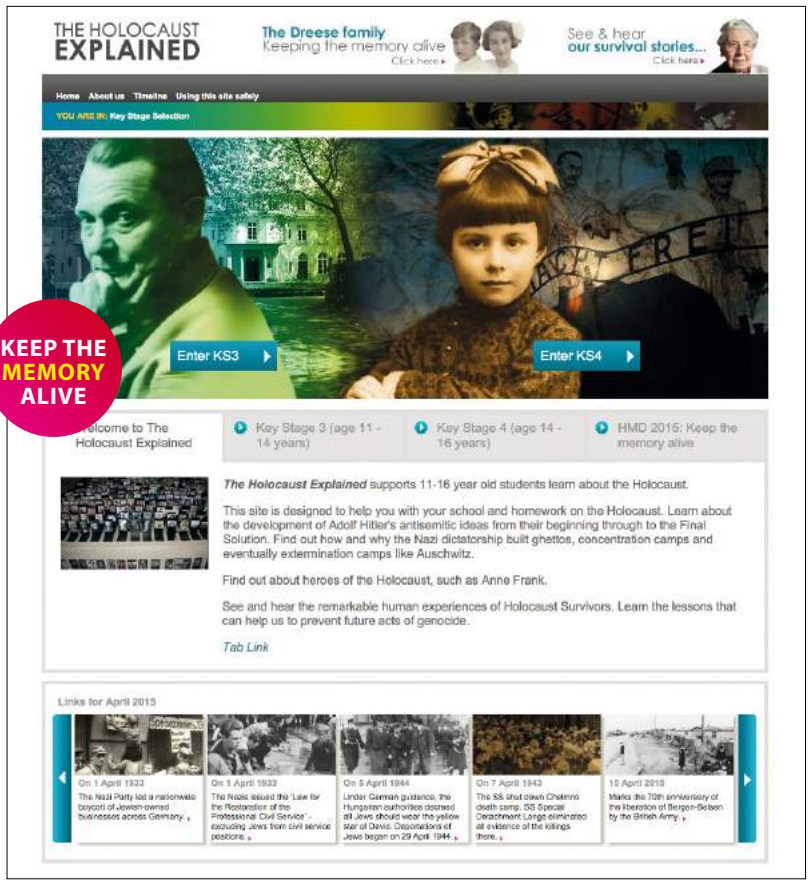
The Illustrated London News was the world's first illustrated newspaper, launched in 1824. It quickly dominated the weekly news market, and specialised in war reporting, with "special artists" sending sketches back from the world's battlefields.

This new LGfL resource allows pupils to learn about the 'Great War' using real news reports and original pictures, from the Illustrated London News archives. The reports and images are broken down into three main sections:

- The Global War
- The Home Front
- Technology and Propaganda

The digital assets are the core of the resource and students and teachers will explore the themes of the war by investigating the evidence, rather than following a traditional narrative and using the assets to illustrate expected conclusions.

illustratedfirstworldwar.lgfl.net



HOLOCAUST EXPLAINED

The first ever student-focussed Holocaust education resource.

LGfL worked in partnership with the London Jewish Cultural Centre to produce this high-quality resource of great cultural and historical significance.

Holocaust Explained features a vast range of media resources, historical documents and graphical representations of a range of Holocaust-related issues.

The site has over 500 web pages, with 1,000 media assets, a glossary of 720 terms, and 11 oral testimonies.

A companion resource has also been produced by LGfL and the Ben Uri Art gallery called Holocaust Education (second link below).

holocaustexplained.lgfl.net
holocausteducation.lgfl.net

DOCUMENTING THE HOLOCAUST

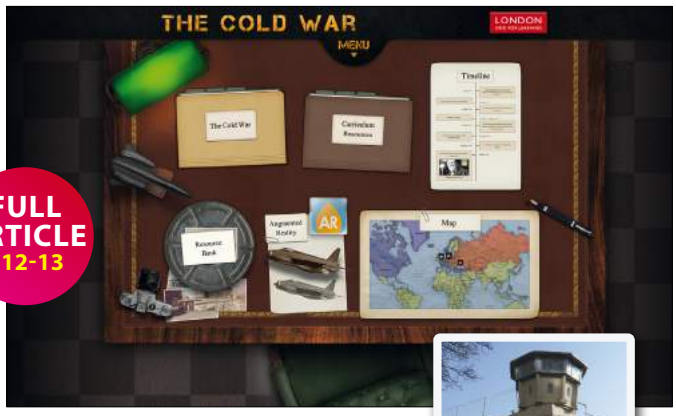
Exclusive access to the archive of the Wiener Library, which includes a signed copy of 'Mein Kampf' and outrageous anti-Semitic propaganda published by the Nazis.

The Wiener Library is one of the world's leading and most extensive archives from the Holocaust and Nazi era. Formed in 1933, the Library has a unique collection of over one million items, including published and unpublished works, press cuttings, photographs and eyewitness testimony.

LGfL cameras were given exclusive access to the archive, where we were guided through a brief history of unique holocaust materials by Library Director Ben Barkow.

Dr Helen Fry is also featured on location in Berlin at the site of the 1942 Wannsee Conference. She explains the background to 'The Final Solution' and the awful efficiency of the Nazi regime.

dth.lgfl.net



FULL ARTICLE P12-13

COLD WAR

This Key Stage 3/4 resource tackles a topic that is contemporary and absorbing for teachers and students.

The Cold War continues to make headlines today (Frederick Forsyth, who features here, has since revealed his past as an MI6 spy), so what better time to provide well-founded, historically-accurate and curriculum-driven materials to help match quality teaching & learning to renewed interest in the subject.

Plus curriculum materials from Ben Walsh (more on p48).

coldwar.lgfl.net

FULL ARTICLE P14-15

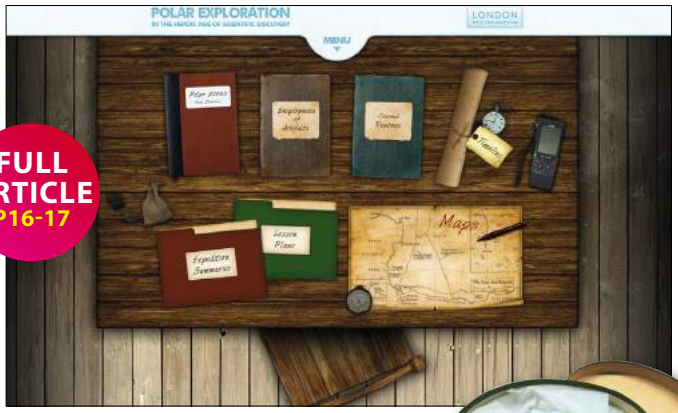
THE M ROOM

The M Room gives exclusive access to secret World War II listening sites where the British Secret Service bugged high-ranking German Military prisoners.

The resource features an interview with one of the original secret listeners (now aged 95), and extensive primary-source material from the Ministry of Defence, relatives of those involved, and The National Archives.

The lead presenter and consultant to the project is the eminent historian Dr Helen Fry. (more on p50).

mroom.lgfl.net



FULL ARTICLE P16-17

POLAR EXPLORATION

LGfL was given unique access to the archive and polar experts at the University of Cambridge's Scott Polar Research Institute (SPRI) to create this cross-curricular resource, with lesson plans tailored to the Key Stage 3 and 4 English curriculum.

The resource includes video footage of equipment and artefacts from the most famous expeditions, complete with text transcripts, plus high-resolution photographs of objects featured in the video footage, and journal extracts read by the grandson of an explorer on Captain Scott's Discovery expedition. (more on p52).

polar.lgfl.net

FULL ARTICLE P22-23

HISTORY OF COMPUTING

Winner of the 2014 Bett Award for 'Digital Collections and Resource Banks', The History of Computing has become one of the most popular resources available from LGfL, and is relevant for the KS3 History National Curriculum statement "challenges for Britain, Europe and the wider world 1901 to the present day (Second World War)".

It was produced with and on location at The National Museum of Computing, Bletchley Park, and Manchester's Museum of Science and Industry.

(more on p59).

hoc.lgfl.net

J2CODE

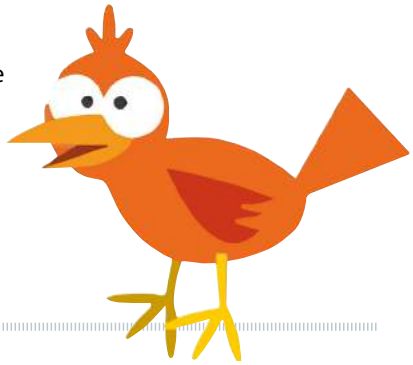
Starting from Scratch? You don't have to, with j2code's full curriculum coverage. But you can, thanks to new Scratch integration.

This coding resource from the makers of the j2e Tool Suite is a Bett Award winner, and with good reason. An intuitive interface brings together three platforms (JIT, visual and logo), which are ideal for lower KS3 classes.

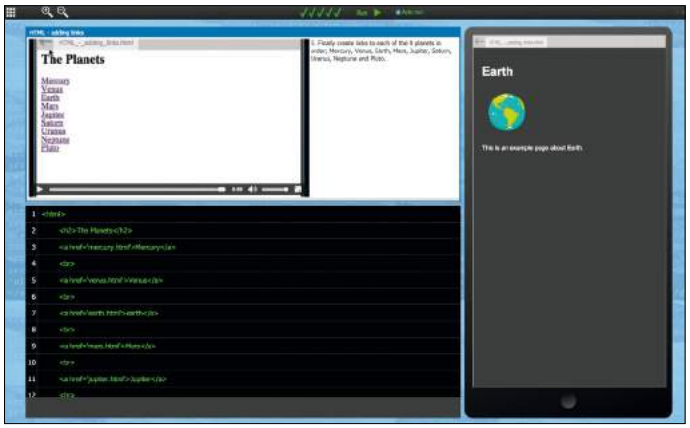
Couple this with lesson plans, help videos and Scratch integration to make the best of both worlds, and you begin to understand the scope of the package.

The drag-and-drop building-block format will be familiar to users of Scratch, making the already user-friendly and engaging tool even more accessible.

j2code is available nationwide, but the beauty of using it in an LGfL school is full integration into the j2e Tool Suite: you can save, embed and write about your work, and then even blog about it (why? See Blog Central; how? All the tools are in j2launch).



j2launch.lgfl.net
blogcentral.lgfl.net



WEBTECH TUTOR

Waking up in a cold sweat at the thought of teaching coding? No longer! If you can drag and drop, or spot the difference between two sentences, you can learn HTML.

The natural progression for KS3 pupils finished with j2code and Scratch is to move onto the LGfL WebTech Tutor.

While the thought of teaching HTML, JavaScript and CSS might cause some concern (imagine a chorus of "It doesn't work" as pupils miss a bracket and break the syntax), WebTech Tutor addresses these concerns in a highly-innovative way.

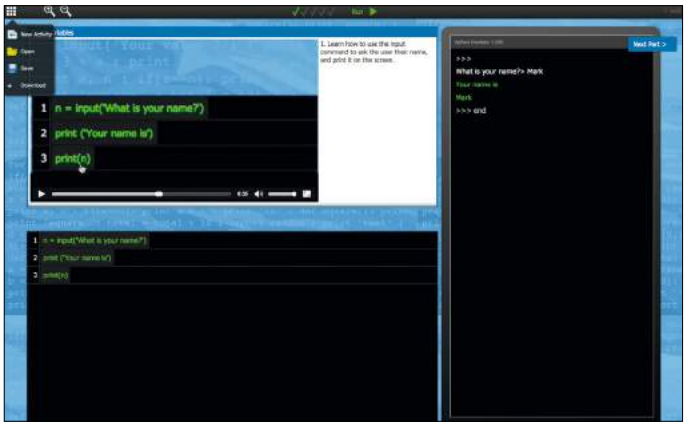
The package is broken down into bite-sized, easily-achievable modules, with a short video walkthrough for each section that can be replayed if necessary. Drag-and-drop functionality allows pupils to get to grips with the concepts, terms and syntax without being frustrated by broken code.

When the crucial skill of debugging is introduced, it is manageable for all: the code doesn't change, but the English (e.g. "Hello World.") must be typed accurately – did you notice the capital H / W in the example, or the full stop? This prepares pupils for taking the plunge into free code in later modules.

webtech.lgfl.net

PYTHON TUTOR

KS3/4: Two years on from the introduction of Computing to the National Curriculum, this resource adds variety to the languages available by introducing students to the object-oriented programming of Python.



Expert teaching within an interactive, supportive environment will allow teachers with no previous experience of the Python language to use it to meet the coding requirements of the Key Stage 3 curriculum.

The package includes 25 different coding concepts, presented one standalone lesson at a time. Students' understanding is initially developed at a conceptual level by allowing them to drag and drop elements of code. They can then refine their skills with more advanced activities on code-creation later in the resource.

Students begin by watching a short introductory video, which presents a new coding concept or problem. They then carry out a series of related short tasks, after which Python Tutor presents them with increasingly-difficult follow-up activities.

python.lgfl.net

HISTORY OF COMPUTING (CONCEPTS)

KS5: The cross-stage History of Computing resource has a dedicated A-Level section on Computing Concepts.

Do your students know how to count in binary? Do they know their ASCII from their hexadecimal? Can they use logic gates, and simplify logic into algebra?

With the 'History of Computing' module on Computing Concepts, they soon will be able to. Videos, lesson plans and presentations help teachers and students to explore the Key Stage 5 requirements of the Computing curriculum, and to understand how British Computing developments have influenced our world.

The resource was designed and made in partnership with experts from the National Museum of Computing at Bletchley Park.

Read more on pages 59.

computingconcepts.lgfl.net

BALLETBOYZ

Introducing dance to a school can be a challenge, especially for boys. That's where the BalletBoyz come in. This groundbreaking project removes many of the entry barriers to the world of dance.

In 2007, LGfL and BalletBoyz began a unique collaboration which resulted in the launch of an innovative online resource exploring three pieces of repertoire from the BalletBoyz company.

Since that first collaboration, the company has received countless accolades and awards as it transitioned into today's mature contemporary company, which is held in the highest regard throughout the dance world.

LGfL is proud to have once again partnered with the company to bring another new set of innovative resources to London Schools.

Many of the core elements of the new resource 'MoovBank' are now available through LGfL. The resource is divided into three distinct sections – for Key Stages 2, 3 and 4, with the specific aim of providing guidance and materials suitable both for specialist dance teachers, and also non-specialists who teach dance.

The BalletBoyz have always believed that dance education is most engaging when students have direct access to the performer.

That's why the resources for curriculum lessons consist of short expert videos with voiceovers by company dancers who break down moves and show students how to join them together in sequences.

Filmed in their Kingston studio with BalletBoyz Company dancers, lessons are based on contact work, creativity and choreography, designed to develop students' physical health, build trust, problem solve and enhance creativity.

Detailed lesson plans are also provided for teachers, explaining how to use the videos. In addition, inspiration clips from the company repertoire are included to further encourage and inspire students and teachers alike.

Keep dancing!

balletboyz.lgfl.net

Live Performance: Harris Academy Boys

THEMES

Key Stage 2:
- Cameras and Gadgets
- City Machines
- Underwater Adventure
- Caves and Jungles
- Mountain Rangers

Key Stage 3:
- Introduction
- Contact with the Floor
- Pushing and Pulling
- Lifting and Falling
- Moving in and out of the Floor
- Partner work: In and out of the Floor

Key Stage 4:
- Intentions
- Twister
- From Solo 1 to Solo 2
- From Solo 2 to a Dynamic Duet
- Structuring a Duet

LAUNCH EVENT

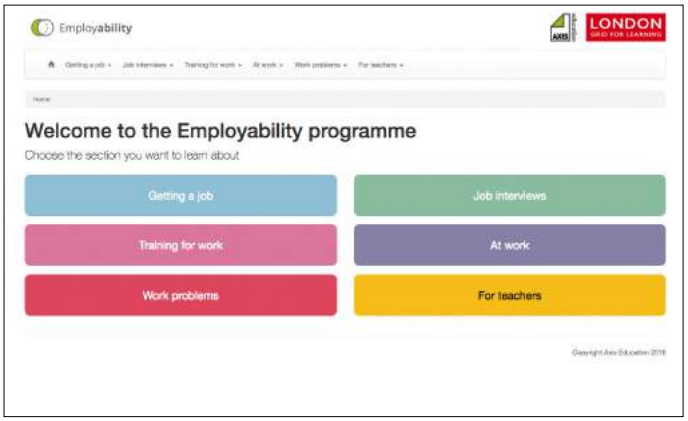
On 11 July 2016, BalletBoyz directors William Trevitt and Michael Nunn launched the new LGfL BalletBoyz contemporary dance resources for London schools at Sadler's Wells.

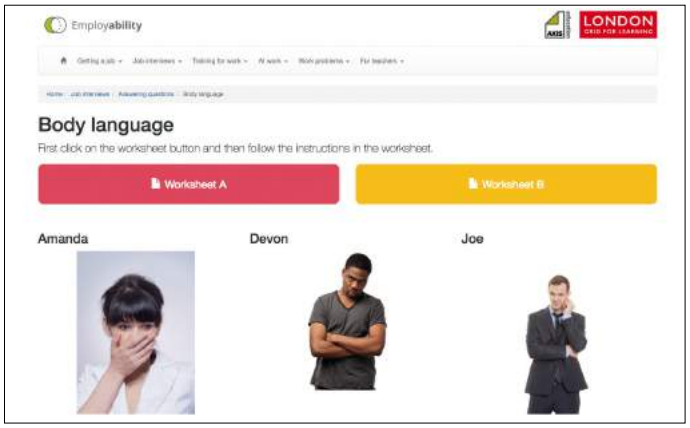
The event featured a presentation of the new resource by its creators, case studies and live performances from London pilot schools, and a live performance by members of the acclaimed dance company.

> "The BalletBoyz approach has always been that dance education in schools is most engaging when students have direct access to the performer."

Live Performance: Robin Hood Primary

Live Performance: Gladesmore Community School





EMPLOYABILITY

A multimedia resource designed to develop employability skills and to support literacy and numeracy for secondary school students.

The differentiated materials provided here support students with a variety of abilities, but has been particularly successful for pupils with low literacy and cognitive ability, as well as with EAL learners, and those with SEND including ASD, SpLD, MLD, SLCD and SEMH.

There are five distinct sections with audio and video-based content and activities. The multi-sensory approach is complemented by A and B versions of each worksheet.

The dedicated Teacher Section contains teaching notes and answers, curriculum mapping, and a bank of additional literacy and numeracy downloads.

Schools have successfully used these resources to prepare for work placements to enhance the success of work experience placements and to support entry-level employability qualifications.

employability.lgfl.net

INCLUSIVE RESOURCES

Beautifully illustrated PowerPoints for Literacy, Maths, PSHE and Science, designed to support students with severe learning difficulties working at P Levels.

These inclusive and engaging resources, suitable for pupils working at P Levels, have been created by artist and teacher Nick Wonham from The Bridge School in North London.

Teacher notes are available for each PowerPoint as separate documents; these contain ideas for how to get the most out of the resource, extension activities and printable materials. The resources fall into four categories:

- Literacy – story resources to engage and motivate your students. They range from sensory stories requiring props, to interactive stories told in call and response.
- Maths – resources to develop students' knowledge and understanding of money, time, and numbers.
- Science – resources to develop your students' knowledge and understanding of the world around them.
- PSHE – resources to develop your students' knowledge and understanding of issues surrounding staying safe, public and private, and bullying.

inclusiveresources.lgfl.net

WIDGIT

A database of visual and accessible symbols and worksheets to support equal access to information and communication.

Our partnership with Widgit Education has enabled us to share over 12,000 Widgit symbols, as well as a vast range of differentiated worksheets using the symbols.

Widgit Symbols give readers of all literacy levels greater access to information, but are especially helpful with pupils with communication and reading difficulties.

Symbols can help support communication, independence and participation, literacy and learning, creativity and self-expression, as well as access to information.

Staff can browse and search the Widgit database via the online portal, where they can download groups or single symbols quickly and easily.

These can then be used to support understanding and communication in multiple ways, such as in symbol sentences, key symbols, communication grids or flashcards.

widgit.lgfl.net

THINKING SKILLS FOR LIFE

Inclusive multimedia resources to support young people, including those with SEND, access important areas within Life Skills, including Relationships, Money, Citizenship, Travel and Leisure.

People, travel, rules and the law, money and entertainment are areas of life that students need to get to grips with as they become more independent. In Thinking Skills for Life, these topics are addressed using videos, sound files, discussion questions, role play suggestions, differentiated worksheets and additional activities.

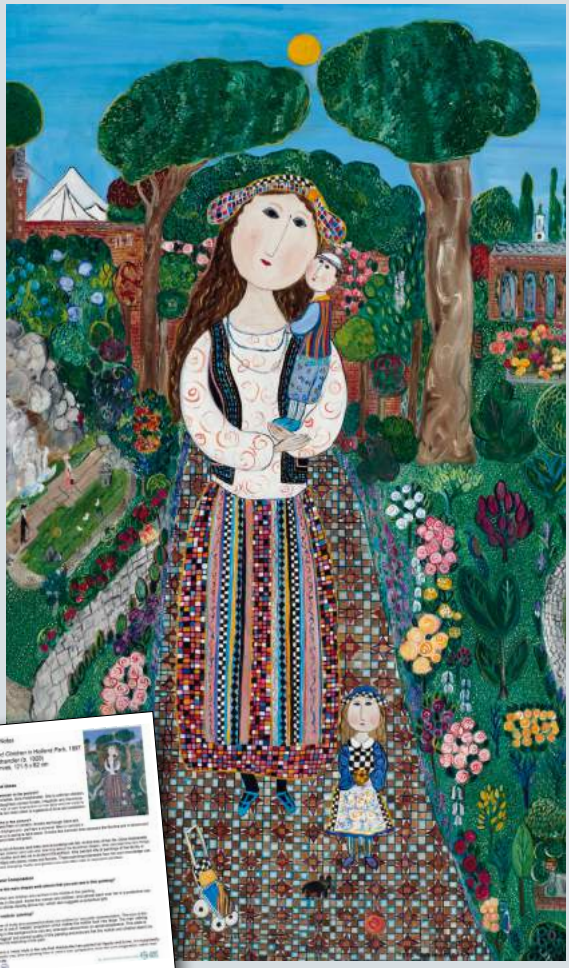
There are 3 categories of worksheets for each activity which require different levels of literacy, thinking and comprehension skills. This includes worksheets which use Widgit symbols to support understanding for many young people with SEND, EAL and lower literacy levels.

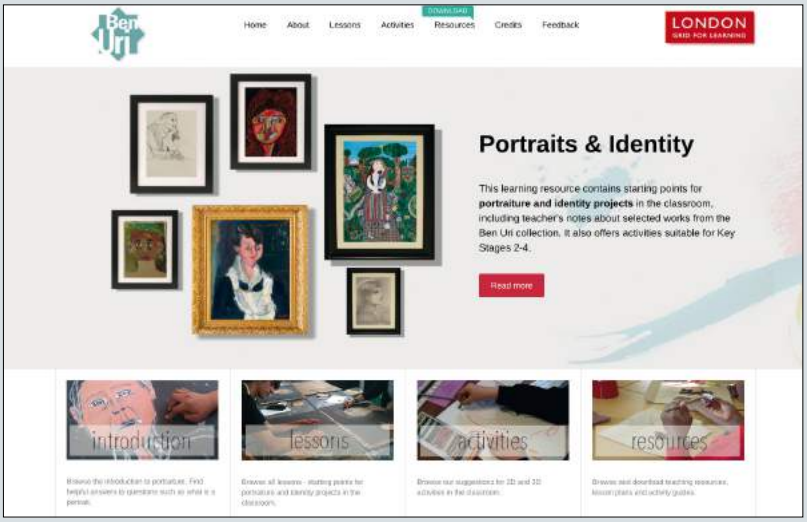
thinkingskills.lgfl.net

To find out how **WordQSpeakQ**, an easy-to-use and powerful literacy tool available through LGfL, can help reluctant writers. Read the feature article on page 12 or visit **wordqspeakq.lgfl.net**

PORTRAITS & IDENTITY

What is a portrait? What can we learn from portraits? This resource explores portraiture and artworks representing 'identity' through a wealth of practical lesson and project ideas.





WELCOME TO THE BEN URI

The Ben Uri Gallery uses its extensive and distinguished collection to explore the work, lives and contribution of British and European artists of Jewish descent, placed where relevant alongside their non-Jewish contemporaries.

The collection of over 1,000 artworks explores a wide range of diverse themes, and shows how art does not just imitate life, but reflects, explores and seeks to understand it.

REACHING OUT

At home in North London, the gallery takes its outreach role very seriously, and has now partnered with LGfL on three major online learning resources.

Portraits & Identity is the latest of these, bringing selected works into the classroom at Key Stages 2-4,to enrich Art & Design, Citizenship and PSHE.

> "The super-high resolution allows you to zoom in and focus on a particular detail of the painting."

MULTIPLE PATHWAYS

The resource can be approached in several different ways, with ideas for lesson series, standalone lessons and activities to integrate into existing projects.

For example, nine lessons on an iconic painting by artists including Soutine, Auerbach and Solomon have high-resolution scans which can be zoomed in on to focus on specific details. Teacher support also includes notes on the artist, content and ideas, form and composition, materials and techniques, and in-depth lesson plans.

In the activities section, ideas range from a ten-day photography challenge, through literacy activities, to a collection of ten different 2D and 3D activities.

WHO AM I?

With Portraits & Identity, pupils discuss the facial features that make them unique, identify key symbols that could represent them, and highlight the different things we see when we look at a portrait for the first time.

This is an important part of personal, social and health education; pupils learn to value themselves and others, and come to terms with their own identity.

identity.lgfl.net

HOLOCAUST EDUCATION

Supporting Holocaust studies for GCSE History students, and highly relevant for GCSE Art & Design students researching Holocaust art.

Art is often used as a way of helping victims respond to and recover from distressing incidents, and this was also the case during and after the horrifying events of The Holocaust.

Part of the Ben Uri Gallery's outreach role is to bring Jewish art to a wider audience, and this important resource was made to complement the existing resource 'Holocaust Explained'.

"A picture paints 1,000 words" - an axiom confirmed by the works in this resource, such as the evocative 'Jewish family in the snow' and 'My Grandfather in Auschwitz' by Holzhandler (shown above – centre and right).

The three mini-galleries of paintings and sculptures by 15 different artists need little else to become a valuable discussion starter or stimulus.

Nonetheless, support material helps learners to deconstruct and analyse. These include annotations and activity sheets on collage and book-making, memorial sculptures, painting and printing techniques, and memory, illustration and autobiography.

benuriholocaust.lgfl.net
holocaustexplained.lgfl.net

ART SKILLS FOR TEACHERS

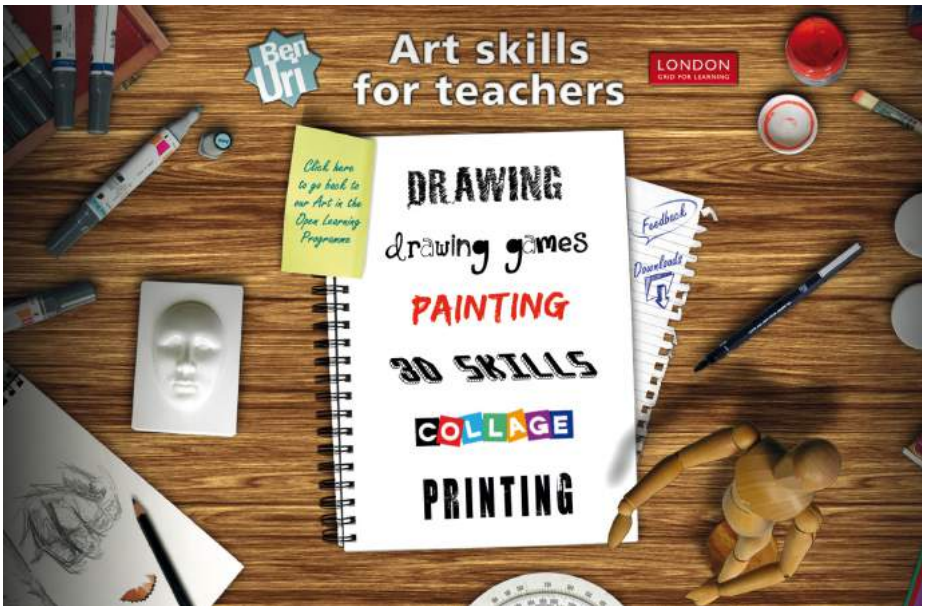
Another excellent resource made in close partnership between LGfL and the Ben Uri Gallery. The name is self-explanatory, but it isn't just for beginners.

Featuring techniques that are easy to understand and replicate, Arts Skills for Teachers features a range of ideas for the non-specialist art teacher to discover, recreate and teach. It offers clear explanations of a range of techniques in action, exemplified in school contexts.

The aim is to inspire teachers and children to experiment with and achieve artwork beyond their own expectations, using unusual and easily-accessible techniques to make art a truly inclusive activity for all members of the school community.

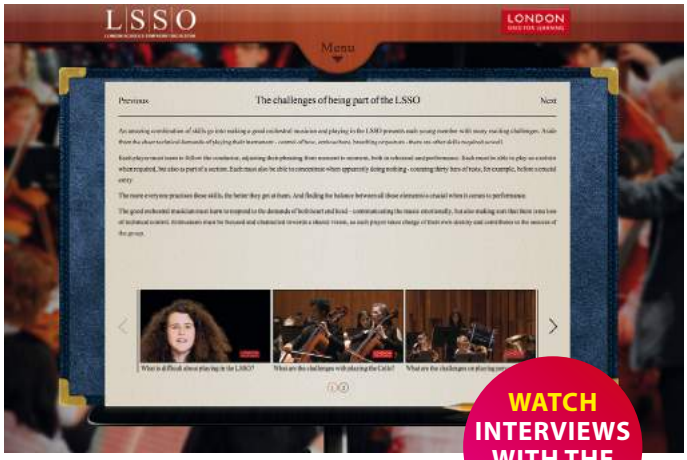
The ideas and techniques can also be used to create works in response to the other Ben Uri resources on this page.

artskills.lgfl.net



LONDON SCHOOLS SYMPHONY ORCHESTRA ARCHIVE

Behind the scenes at a world-class youth orchestra's rehearsals and live performances. Check it out – it might just strike a chord!



WATCH INTERVIEWS WITH THE PLAYERS

Hailed by Sir Simon Rattle as "an incomparable ambassador for the dynamism and excellence of British youth", the London Schools Symphony Orchestra (LSSO) has for over sixty years been regarded as a potent symbol of the talents and achievements of London's finest young musicians.

LGfL has worked with the LSSO to build an archive of the orchestra's output over the past sixty years, with programmes, articles, newsletters and press clippings.

For the past five years, the archive also includes professional audio and video recordings of the tri-annual concerts held at London's Barbican Centre. This amounts to over 50 separate orchestral works to watch, listen to and study with pupils.

What greater inspiration for Key Stage 2 pupils than to see what hard work and talent can lead to over the next few years of their musical education?

lsso.lgfl.net

AUDIO NETWORK & AUDIO NETWORK TV

This online music database features over 60,000 professionally-recorded audio tracks, licensed for educational use and fully searchable – even by mood. So how are you feeling today?

As explained in the full article on pages 54-55, Audio Network has applications way beyond the music room.

But a music resource it most certainly is. In combination with Audio Network TV, which takes a look behind the scenes with famous sound engineers, composers, conductors and musicians in the studio, the potential for the music specialist is significant.

The tracks can be downloaded in manageable .mp3 format or as high-quality .wav files, depending on your needs, and are all licensed for educational use.

audionetwork.lgfl.net
audionetworktv.lgfl.net

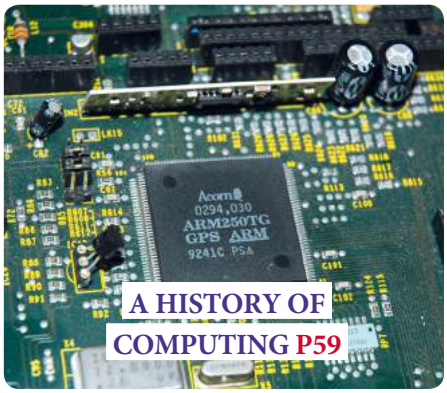
DIGITAL COLLECTIONS

THOUSANDS OF RELEVANT IMAGES & VIDEOS AT YOUR FINGERTIPS

IMAGE BANK, HOME TO SUPER-HIGH-DEFINITION IMAGE COLLECTIONS P56

THE M ROOM P50

POLAR EXPLORATION P52



A HISTORY OF COMPUTING P59

THE COLD WAR

One of LGfL's most ambitious resources spans borders, ideologies and even realities, with spies, journalists and dissidents; prisons, concentration camps and border walls.

This Key Stage 3/4 resource tackles a topic that is contemporary and absorbing for teachers and students.

The Cold War continues to make headlines today (Frederick Forsyth, who features here, last year admitted to his past as an MI6 spy), so what better time to provide well-founded, historically-accurate and curriculum-driven materials to help match quality teaching & learning to the interest in the subject.

Designed with major GCSE exam-boards in mind, not to mention the KS3 History National Curriculum, The Cold War is highly engaging, but about much more than mere intrigue.

Lead presenter and consultant to the project is eminent historian, espionage expert and author Dr Helen Fry, who presents to camera from locations as diverse as a UK government nuclear bunker, former Stasi Prison, and the Brandenburg Gate.

She shows how a

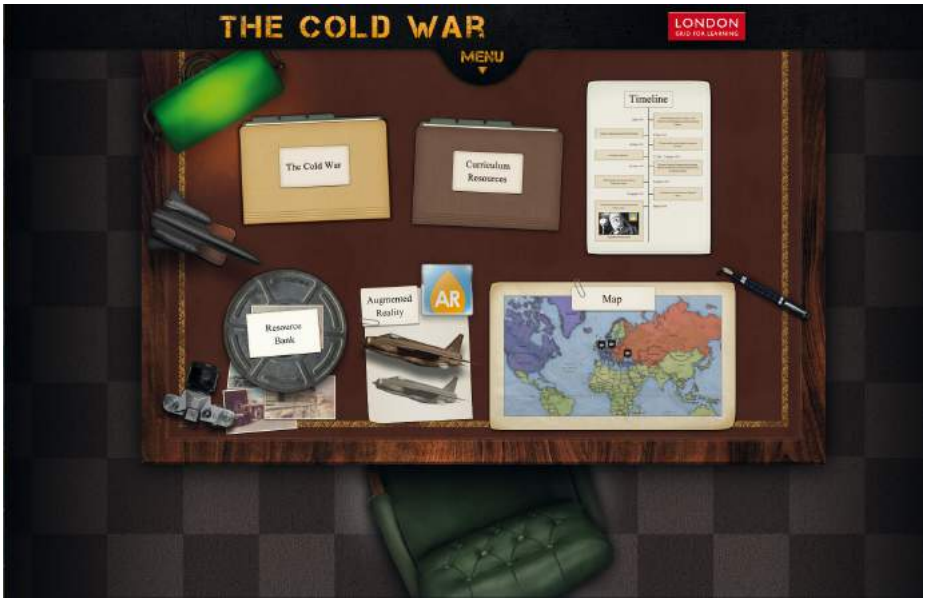
INTERVIEWS INCLUDE

Frederick Forsyth
Did Britain have spies behind the Iron Curtain?

Fred Judge
Was the Berlin Wall impenetrable?

Peter Wulkau
How did prison change you and your opinions?

Dr Helen Fry
Why film on location at Duxford nuclear bunker?



historian works, with months of research preceding site visits and interviews with experts and witnesses.

For The Cold War, these included a former MI6 spymaster, Stasi prisoner, and a Reuters East Berlin correspondent (who just happened to be a bestselling author and former MI6 spy).

Dr Fry sourced recently-declassified MoD documents, plus personal photos from Churchill's bodyguard, and ensured that these and many more materials are available for educators and students.

The curriculum materials were created by exam-board adviser and GCSE textbook author Ben Walsh, who crafted a series of ingenious lesson activities to complement schools' existing schemes of work.

Tasks help learners use the exclusive materials to conduct their own research into the murky world of the Cold War.

The resource is divided into thematic and curriculum sections, but all documents, images, and videos (300+ historical and contemporary assets) are searchable via the resource bank, allowing teachers to fully disaggregate the wealth of primary and secondary-source material.

All of this is complemented by a series of augmented-reality objects for quality engagement, all highly-relevant and embedded into lesson plans.

coldwar.lgfl.net

PLACES OF INTEREST

Learn more about places of interest from the Cold War.

Berlin Wall
Iconic symbol of the struggle between East and West

Stasi Prison
Deep within a secure zone, nobody ever escaped

Kelvedon Hatch
UK government nuclear bunker

Glienicke Bridge
nicknamed the 'Bridge of Spies' by the media

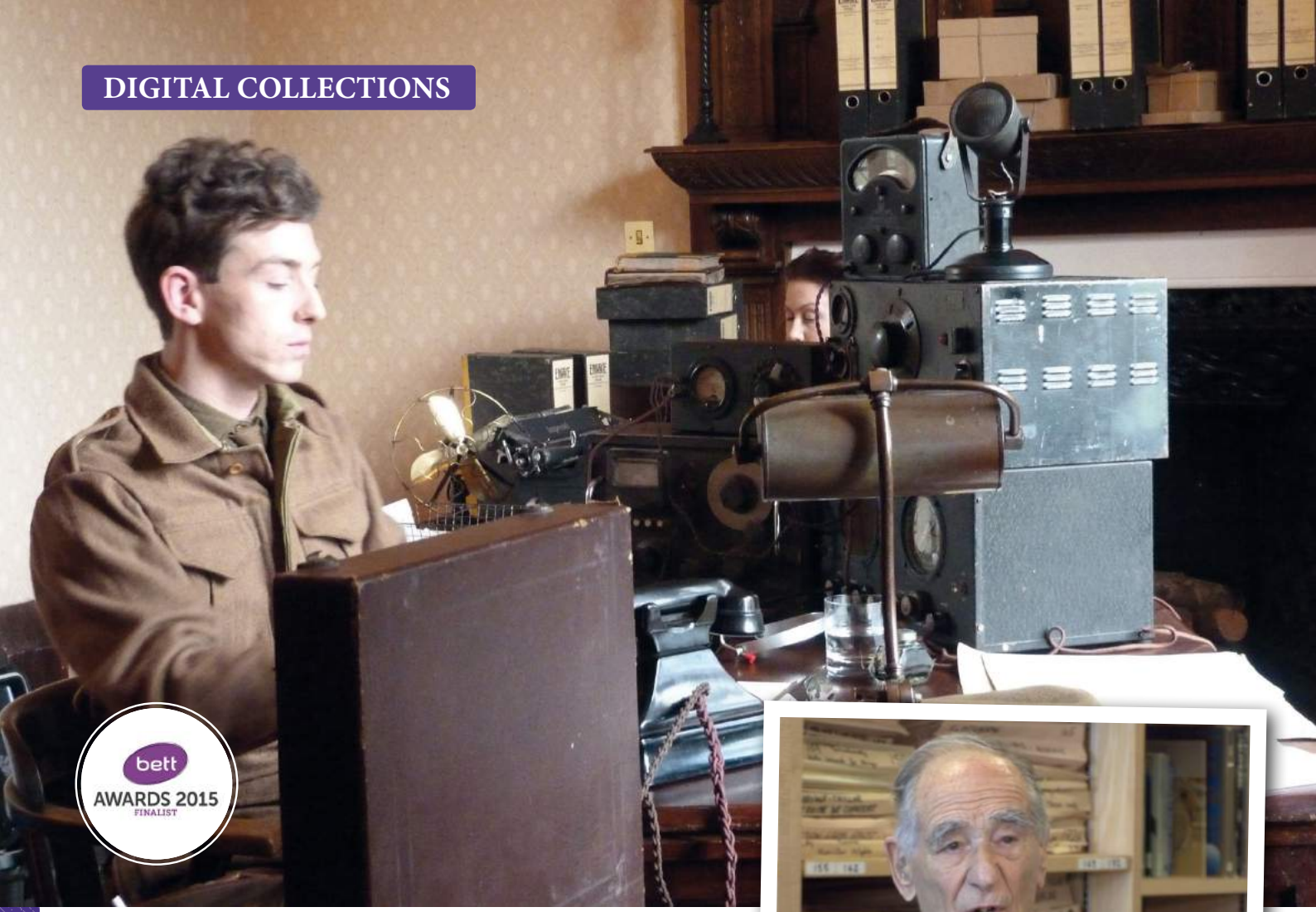
Cecilienhof Palace
home to the Potsdam Conference at the end of WW2

COLD WAR NUCLEAR STRIKE VIRTUAL REALITY

All you need to make this resource come to life is a free Apple or Android app. At the height of the Cold War, nuclear war was a distinct possibility. Now you can experience a nuclear strike in virtual reality.

THE COLD WAR AUGMENTED REALITY

All you need to make this resource come to life is a free Apple or Android app. See famous Churchill, JFK and Reagan speeches, nuclear fallout over London, or a mid-air intercept.



bett AWARDS 2015 FINALIST

THE M ROOM

World War II has long been core to the curriculum at Key Stage 3 and 4, but now teachers and students have the chance to explore a new angle – the bugging of German generals in British stately homes to reveal secrets of wartime strategy and even genocide.

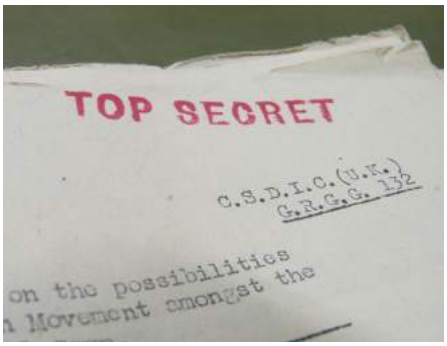
The M Room gives exclusive access to secret World War II listening sites where the British Secret Service bugged high-ranking German Military prisoners.

The resource features an interview with one of the original secret listeners (now aged 95), and extensive primary-source material from the Ministry of Defence, relatives of those involved, and The National Archives.

The lead presenter and consultant to the project is the eminent historian Dr Helen Fry.

The depth and range of material in the resource is a result of Helen's meticulous research at The National Archives, with relatives, and out on location: she uncovered information about The M Room story that even the Ministry of Defence was unaware of.

The resource features 50 high-



quality video clips filmed on location at declassified military sites, as well as over 50 high-resolution images of locations, personnel, maps and previously-classified documents.

Produced in response to the revised secondary National Curriculum, The M Room specifically targets the Key Stage 3 History curriculum section 'Challenges to Britain, Europe and the

> **British Intelligence would always mix army, airforce and u-boat personnel, so prisoners would need to give more detail in their conversations. They didn't realise that there were microphones in the light fittings just above their heads...**
>
> *Historian Helen Fry*

wider world from 1901 to the present day', picking up on the suggested focus of 'the Second World War and the wartime leadership of Winston Churchill'.

It also features sections on Nazi atrocities, linking to the statutory requirement to cover the Holocaust at KS3, as well as incorporating curriculum-linked activities for KS3/4 English.

The resource is designed to be used both as a class teaching tool and in an individual learner context. The structure of support material is specifically designed to meet the needs of History teachers working with Key Stage 3 and 4 pupils.

There are detailed lesson plans to ensure accessibility to the resource for teachers who may be new to the subject, offering a complete support package to maximise the benefit of this digital collection.

However, the M Room is equally designed to be of great value to the subject specialist, who may wish to use videos, images or augmented-reality objects as standalone stimuli.

The resource bank allows you to see all assets at a glance, for embedding into existing lessons and schemes of work.

Pupils could equally be tasked with conducting their own research on a particular section for homework.

And the 'recording history' section is an invaluable tool for learners to understand how historians work.

Dr Helen Fry models how she uses primary-source material to build an understanding of the past.

mroom.lgfl.net

> **I was told that it was just a disused storeroom, but before I knew it, I was stumbling across key documents that had not been seen for over 50 years.**
>
> *Helen Fry discovering documents at Wilton Park.*

THE SECRET LISTENERS

Fritz Lustig was a 'secret listener' – he helped translate the conversations of German prisoners-of-war bugged by British Intelligence during WW2.

POLAR EXPLORATION

IN THE HEROIC AGE OF SCIENTIFIC DISCOVERY

Not many schools can manage an annual trip to the North Pole; if there is a next-best thing, surely it is the immersive effect of this multimedia resource.

OBJECTS OF INTEREST

P-p-p-pick up a Polar artefact!

Edwards Evans's sledge model
Model-making – one way to while away those long winter hours

Primus stove
Unique design lets you melt snow for drinking while you are cooking

Herbert Ponting's camera
Ponting used this camera for many of his iconic images

Penguin egg
You wouldn't want to scramble this artefact from the Terra Nova expedition

The University of Cambridge's Scott Polar Research Institute (SPRI) is one of the world's most famous bodies for the study of the science, technology, history and culture of the polar regions.

SPRI holds a unique collection of artefacts from expeditions past and present, from the eponymous explorer who gave his name to the Institute right through to modern-day adventurers.

And while the materials used for the gloves and goggles may have changed somewhat (you can investigate old and new within the resource), the challenges remain the same, and lessons learned from the first expeditions are still saving lives today!

LGfL was given unique access to the SPRI archive and its polar experts to create this cross-curricular resource, which includes lesson plans tailored to the Key Stage 3 and 4 English curriculum.

The resource includes video footage of equipment and artefacts from the most famous expeditions, complete with text transcripts, plus high-resolution photographs of objects featured in the video footage, as well as journal extracts read by a descendant of one of Captain Scott's Discovery expedition.

There are also opportunities to meet a modern-day polar explorer and hear of his experiences living for extended periods of time in some of the world's most extreme environments.

At GCSE, curriculum experts used the stimulating, rich primary-source material to create teaching resources that tackle: creating an argument, descriptive writing, understanding genre, making a radio script, and narrative writing.

At Key Stage 3, Polar Authors includes lessons covering: autobiographical writing, forming a chapter, adverbs and intransitive verbs, adjective and noun phrases, fronting and modifiers, compounds and active voice.

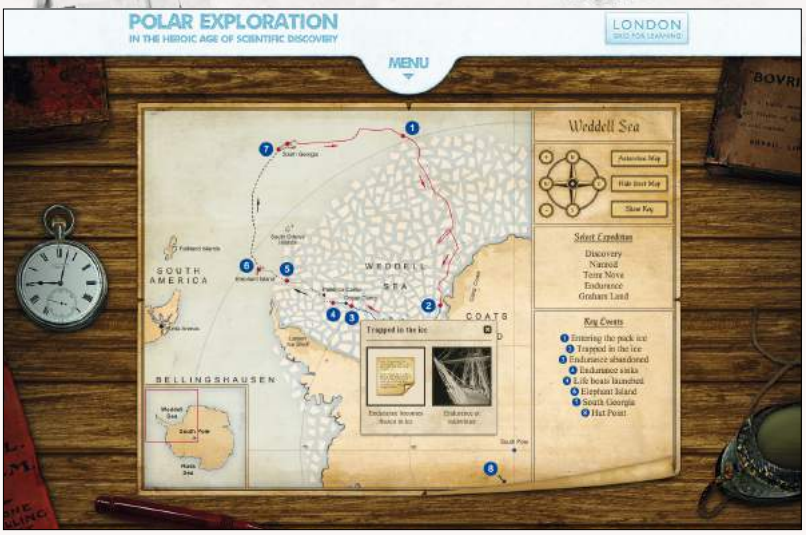
Students are encouraged to immerse themselves into the lives of the explorers, aided by the hundreds of HD images and high-resolution images, plus interactive timeline and Google Map interface – take a look at how the inside of Scott's preserved expedition hut looks today.

Explore – engage – inspire...

polar.lgfl.net

DID YOU KNOW?

Herbert Ponting was one of the most renowned photographers of his time and a pioneer in the use of the camera in extreme conditions; he liked to be referred to as a 'camera artist'.



Pictures: Scott Polar Research Institute, University of Cambridge

AUDIO NETWORK

Over 60,000 professionally-recorded tracks licensed for educational use. No getting caught out by copyright law; no need for poor-quality ripoffs.

Includes **60,000+** audio files

IT COULD BE YOU

It was just another Monday morning at St John's. Parents were phoning the absence line and delivering forgotten P.E. kits, and the photocopier had jammed again.

Then the letter arrived. American copyright detectives had sent a 'breach of copyright' notice for an illegal copy of a hit song on a class blog.

It was a pupil video, and it was educational. But the lawyers didn't want to know. The school had 4 weeks to pay up $10,000 or be taken to court.

NO NEED TO FALL FOUL OF THE LAW

Online tracking makes it foolish as well as illegal to breach copyright in this day and age. But in an LGfL school, there really is no need.

On behalf of London schools,

> **"You can even search by mood – try *scary*, *jolly* or *angry*!"**

LGfL has licensed the Audio Network database for teachers and pupils for educational use – in school and at home.

QUALITY AND QUANTITY?

Audio Network is not just another compilation of unwanted tracks and poor covers.

With recordings of professional musicians (often entire orchestras!) by professional engineers in professional studios (heard of Abbey Road?), LGfL schools can use over 60,000 tracks, spanning a wide range of genres, styles, instruments, composers, etc. You can even search by mood - try *scary*, *jolly* or *angry*!

Once you have found your perfect track, you can stream it live, save it to your favourites, or download it in .WAV or .mp3 format.

But Audio Network isn't just a gift for the music teacher – why not explore mood and atmosphere in literacy, or a historical era in History and Art?

audionetwork.lgfl.net

AUDIO NETWORK TV

Go behind the scenes at Audio Network; see how professional musicians work.
Do you need big hair for 'Big Hair Rock'? Find the answer to this question and many more.

Music isn't just for musicians! From the makers of Audio Network, Audio Network TV gives us an insight into the recording of some of the high-quality music tracks available to all LGfL-subscribing schools.

We meet producers, engineers, studio owners, conductors and musicians, and see how they work together to make some of the greatest tracks ever heard.

From music producer Steve Levine and the Royal Philharmonic Orchestra on recording at Abbey Road Studios, to Ray Davies on big bands, and metallers on 'big hair', Audio Network TV opens the door to the recording process, and gives an insight into the professionalism of all those involved in creating a track.

audionetworktv.lgfl.net

OVER 1,000 HI-RES IMAGES

Picture: Royal Collection Trust © Her Majesty Queen Elizabeth II 2016

IMAGEBANK

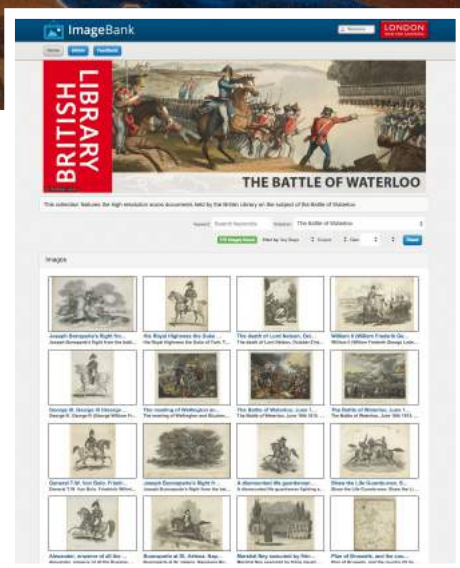
"My, my! At Waterloo Napoleon did surrender..." Whilst Abba might have some historical insights, a better way to study the famous battle might be with a collection of super-high-definition images from the British Library.

The new LGfL ImageBank is home to an expanding set of image collections licensed from national cultural institutions including the British Library and Royal Collection Trust (with whom we have started a series of training events - see training.lgfl.net).

All the images are in extremely high resolution and include many paintings on display in famous collections, not to mention those which cannot currently be seen anywhere in the UK.

The nine Royal Collection Trust collections are curated selections of works displayed during RCT exhibitions at royal palaces around the country.

Picture: © The British Library



And thanks to the generosity of the British Library, the Magna Carta can now put in an appearance in your classroom.

Much more than an Art resource, the image collections have applications across the curriculum – from History, to Biology, to Geography.

Each image has been curated as appropriate for use in an educational context and, uniquely, can be downloaded in high resolution.

imagebank.lgfl.net

THE GUARDIAN AND OBSERVER NEWS ARCHIVE

"Extra! Extra! Read all about it!"
The LGfL News Archive includes scans of every Guardian newspaper printed since 1821 and every Sunday Observer since 1791. That's quite a lot of 'extra' to read about.

What did people actually think when man landed on the moon? Did British public opinion shun apartheid when Nelson Mandela was first in the news?

And did John Scot's "pills for curing gouty bilious and nervous disorders" actually work in January 1792?

The answers to these and many other questions can be found within this unique archive of over 300 years of British journalism (Mr Scot's pills might not seem relevant, but attitudes to medicine were a little different in 1792).

> **"The newspapers are an amazing historical record of all the events of the past two centuries."**

History textbooks by nature need to distil the essence of a story for a schools audience, whereas a newspaper article gives a snapshot of the attitudes of a certain time, not to mention how perceptions are inextricably linked to current thinking and understanding.

It would be tempting to call this a History resource – which of course it is as well – but across the curriculum, teachers are encouraged to take a little 'extra' and "read all about it".

newsarchive.lgfl.net

MEET THE EXPERTS

Joanna Chorley was part of the Women's Royal Naval Service – known as 'The Wrens'. She was posted to work on Colossus, the world's first electronic computer, which was based at Bletchley Park.

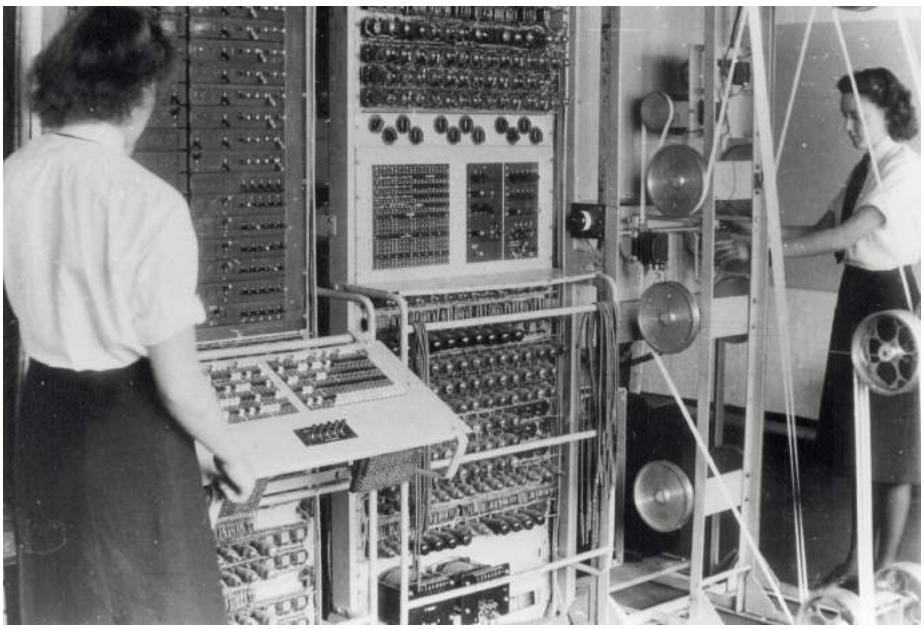
Major Helen Carter served as a Corporal in the Counter Intelligence Wing of 'Intelligence and Security Group Germany' from 1987-89. Her role was to detect activity by foreign intelligence services.

Michael Smith is the author of a number of books about Bletchley Park which explains precisely how Britain's wartime codebreakers helped win the war.

Dr Helen Fry is a highly regarded historian who has written and edited over 25 books. Her works primarily cover the 20th century, especially World War II and espionage.

WOMEN IN COMPUTING

Women in Computing aims to recognise and promote the achievements of women in British computing within the social context of the time. It does not seek to dwell on negative aspects where woman have been prevented from contributing to the computing landscape, but it does explore the issues surrounding how and where their unique contributions have developed understanding and achievement within the computing industry and in wider society.



During the creation of the 2014 BETT Award winning History of Computing learning resource, we were conscious that the contribution of women to the computing landscape in Britain was significant but too big to cover within the context of the original development.

A commitment to adequately cover the unique contribution of women in their societal context has resulted in this resource.

The nature of the topic and a commitment to ensuring that the resource offers a truly unique and high quality stimulus for all learners has slowed the development of this resource, as we have been careful not to duplicate coverage of many other excellent resources and initiatives in this field.

wic.lgfl.net

A HISTORY OF COMPUTING

Playing the 'imitation game' – helping the developers of tomorrow understand the relevance of lessons learned by the pioneers of computing.

Winner of the 2014 Bett Award for best Digital Collection and Resource Bank, The History of Computing has become one of the most popular resources available from LGfL.

Importantly, it is not an attempt to provide blanket coverage of the entire new Computing National Curriculum, but to offer a unique insight into the people and products that formed the bedrock of modern computing.

Produced in partnership with and on location at The National Museum of Computing, Bletchley Park, and Manchester's Museum of Science and Industry, this resource features video footage and high-resolution photographs of many of the iconic British computing systems used since 1940, including the Colossus Mark II system – restored to full working order.

For each system, Input, Processing, Storage and Output are deconstructed and placed within a societal context, and experts explain how the systems function and what role they played in advancing our work and leisure activities.

Resources include learning support material for the Computing National Curriculum and Key Stages 2-5.

The History of Computing aims to show that an understanding of our digital heritage is critical for shaping our digital future.

British computing developments have significantly influenced the world we live in. These unique materials show how home-grown innovations continue to impact on our world today and shape all of our tomorrows.

hoc.lgfl.net

DID YOU KNOW?

Colossus (main image) was one of the first-ever electronic computers. It was built to break German coded messages during WW2 and would easily fill a large room.

PEOPLE OF INTEREST

Learn more about the people behind the development of modern-day computing

Tommy Flowers designed and built Colossus

Alan Turing is regarded as the founder of computer science

Sir Clive Sinclair invented the first affordable electronic pocket calculators and home computer

OBJECTS OF INTEREST

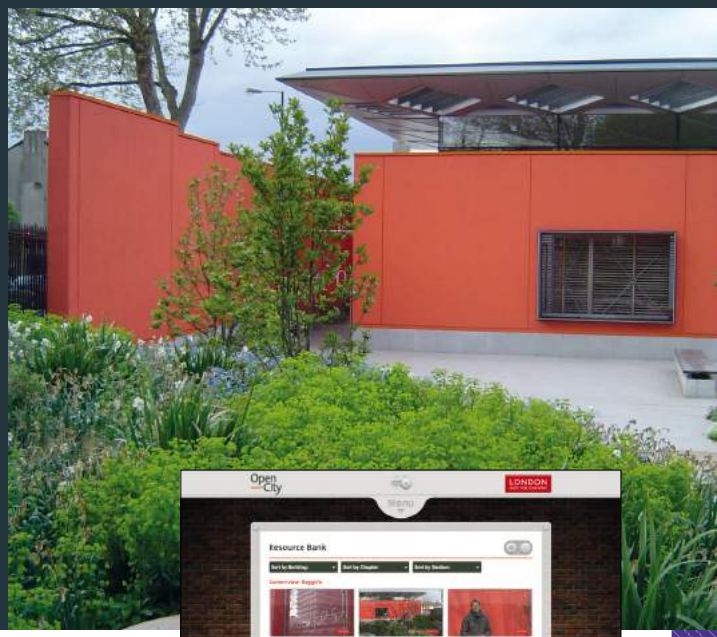
Learn more about computers

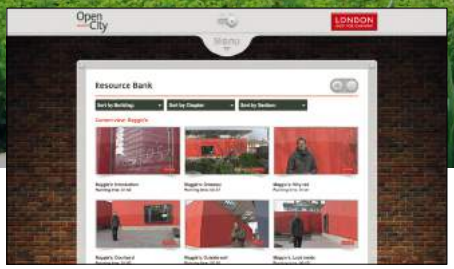
Tape reader for the Elliott 803. Used to input data on perforated paper

ICL mainframe data storage disk

Teleprinter within Colossus for outputting readable results

Sinclair ZX Spectrum





OPENING UP ARCHITECTURE

No longer the preserve of specialists, architecture has relevance across the curriculum.

JUST IMAGINE

Imagination, Maggie's and the Channel 4 Building – three iconic London landmarks that are fine examples of outstanding but diverse architecture.

Opening up Architecture provides expert insights into these unique buildings in a cross-curricular resource that covers ten different school subjects.

WHY ARCHITECTURE?

How often do we consider the influence that the built environment has on our daily London lives?

How do materials, use of light, layout and construction methods impact on our work and leisure?

AN OPEN CITY

LGfL worked in partnership with not-for-profit organisation Open City to create a programme that will help London teachers and students to better understand the built environment.

Materials used, use of light and sensitivities of the needs of clients and daily users are all analysed and presented in an accessible way for the non-specialist to incorporate into a wide range of curriculum areas.

This unique resource aims to develop a better understanding of the environment in which we all live.

oua.lgfl.net

OVER **50** VIDEOS

NAVIGATING THE WORLD OF LGfL CONTENT

Our learning-resource portfolio is often described as a treasure trove; we can help you find out what's in it.

The LGfL content strategy is not about forcing teachers to abandon tried-and-trusted lessons and teaching methods; it isn't about a one-size-fits-all approach; and it isn't about replacing the teacher with technology.

So what is it all about? Using technology to enhance learning; making effective teachers even more effective; opening up new possibilities; providing resources that are flexible enough to slot into existing schemes of work or to become new standalone units; and supporting teachers old and new with materials that marry top-class engagement with curriculum relevance and solid pedagogy.

As well as sourcing, licensing, developing and creating this high-quality content, it is just as important to make it accessible to the busy teacher who barely has time to buy food for dinner, let alone spend hours browsing resources and contemplating lesson-plan changes.

LGfL.net is continually being improved to ensure that teachers can find what they want, when they want it.

When you visit **content.lgfl.net** (or click the 'content' dropdown menu from any page on the site), you will see these six red icons, which all give you a slightly different way into the materials.

Want to browse everything that could be relevant for the classes and subjects you teach? Then this is the button for you.
grid.lgfl.net

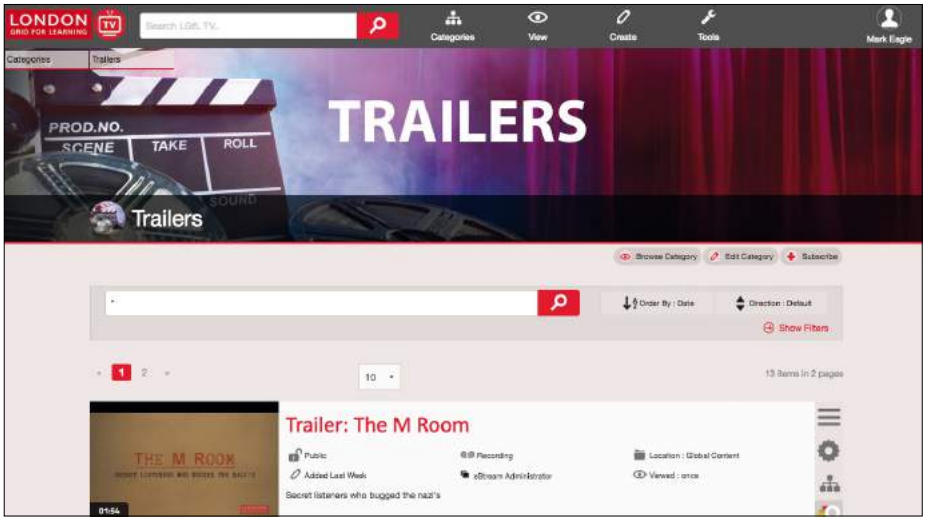
Click here to see as few resources as possible to help you meet a very specific curriculum need.
pos.lgfl.net

Our portfolio of inclusive resources to help teachers in mainstream and SEND schools is extensive and growing!
send.lgfl.net

This one should be obvious – you're reading it now! We have print and online versions of our magazines.
contentmagazines.lgfl.net

Ideal for staff / department meeting, a Primary and Secondary video can remind you what is available.
contentvideos.lgfl.net

Let us surprise and inspire you with our Forward Planner, Did You Know?, Online-Safety Tip, Author of the Week, On this Day, Image of the Day
inspireme.lgfl.net



LGfL TV

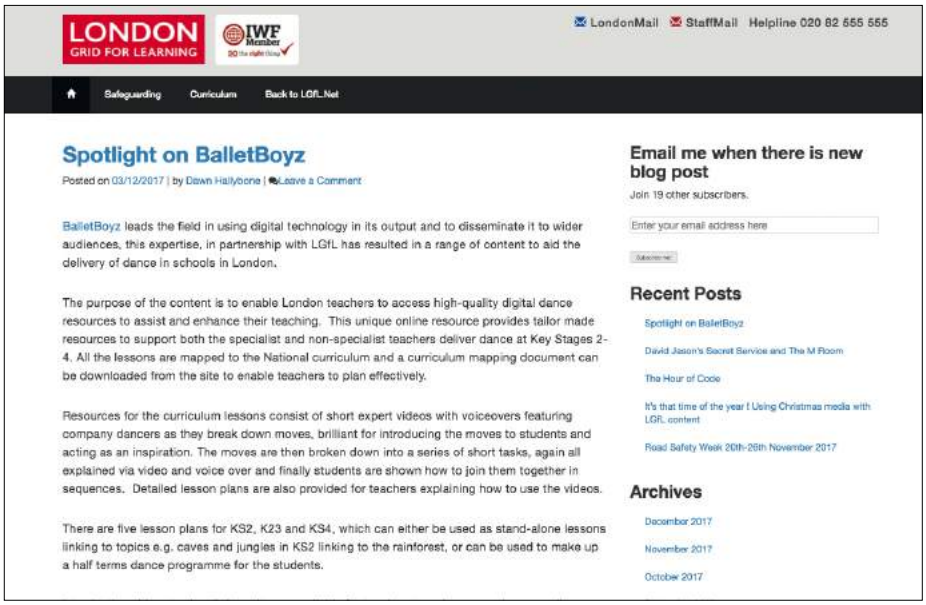
The new home of the latest video content on LGfL, LGfL TV offers the opportunity to discover the latest thinking on the effective use of technology in the curriculum, experience trailers and summary walkthroughs of the extensive learning resource portfolio and even watch live events as they are streamed over the secure LGfL network.

lgfltv.lgfl.net

CURRICULUM BLOG

Established in the autumn of 2017, the Curriculum, Safeguarding and SEND blogs are becoming key destinations for the latest in innovative thinking in how to blend the best online learning resources to meet the needs of all learners within a safe and secure context. Featuring updates every week, make sure you are signed up and making use of the gems of authoritative advice contained within.

curriculumblog.lgfl.net



SOCIAL MEDIA

Use social media as the fastest way of keeping up to date with all things LGfL and to help you keep on the leading edge of educational developments across London and beyond. Why not join the growing band of London schools publishing their learning outcomes via social media platforms and receive the support of the wider LGfL community in doing so? It's amazing the support that you can receive and the scale of reach for a post if you cultivate the right audience online.

Find out more about LGfL at **www.lgfl.net**
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