

# Digital Learning & Technology

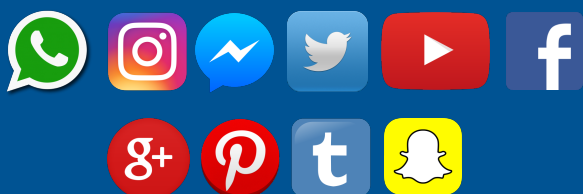
*in Perth & Kinross*

## Almost Easter...

We're now well in to 2017 and gotten used to putting 17 rather than 16 every time we write the date. There have been lots of developments on the digital learning front and we've been working with many schools since Christmas and on inset days. Every time we do a session on GLOW there are quite a few open mouths as to how much it has improved and genuine wow moments which you'll read more about this issue. Dates for some "WOW" CPD twilight sessions are on the back page.

## Managing the perils of social media

The landscape that our young people have to traverse online is constantly evolving and none more so in the world of social media. We all want to be able to support and guide young people for their emotional and physical well being but it is territory that many teachers have no experience in. Of late, young people have moved away from social media platforms like Facebook and moved into the world of social messaging, the big players being apps like Instagram and Snapchat, which focus on the visual storytelling of your online self.

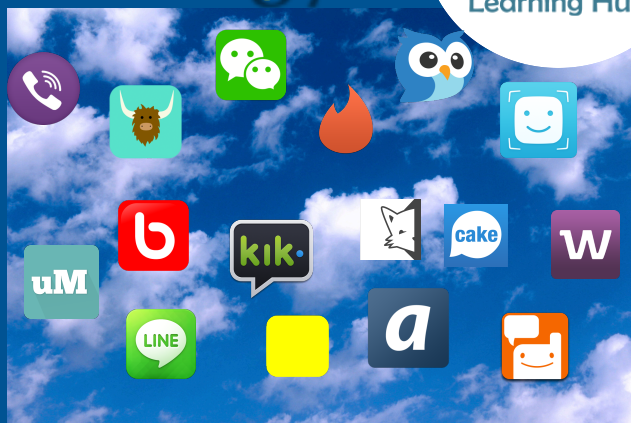


In 2017 it is predicted there will be 265 billion app downloads. One of the difficulties as a parent or member of staff is keeping track of new apps and how more familiar apps are evolving to compete with new ones.

Take the idea of disappearing messages. This was a key selling point of Snapchat, with any message, picture or video you watch disappearing into the ether once you have viewed it. So popular has been this element that many new apps appeared that mimic that. Facebook Messenger is likely to add this functionality soon in order to keep their product relevant.

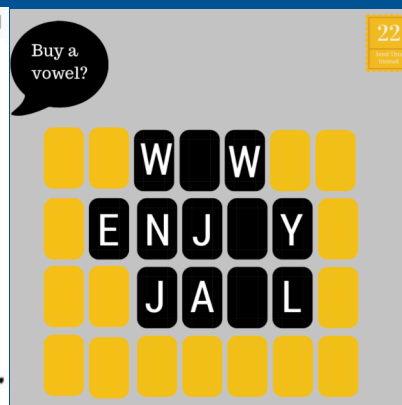
For young people this gives them some sense of privacy about their conversations and image shares. For parents and staff, it is a minefield and there is the fear that the images that are being shared are inappropriate and perhaps as a result of significant peer pressure.

Big players like What's App and



Facebook messenger are relatively easy to find out information about but what about new apps like Viber, WeChat, kik, yikyak, Ogle, Shots, Whisper, Tinder, Yellow, Secret, uMentioned? All of these are now players in the social media and messenger landscape to a greater or lesser degree. By the time this is sent to you some may well be obsolete but you can bet that something else will come along in its place.

Faced with the impossibility of trying to keep up what can we do? Amongst some of the best advice we've seen is helping young people to use the language of memes and messaging to empower them in articulating their independence. One app which supports this is "Send this instead". The company asked all the funny people they knew, "What would you say if someone asked you to send images you didn't want to?" They then took their answers and made images that are witty, sarcastic and meant to help get the point across – using humor as a strategy. For young people struggling to say no, they give them the confidence to be smarter and wiser with a good comeback in inappropriate conversations. Childline also produce a similar app called Zipit which also gives advice about sexting.



You can also find out more about apps and how they are used and abused by visiting the Common Sense Media pages [here](#)

# Supporting Dyslexia with the Immersive Reader

GLOW and Office 365 are sometimes described as being an "Evergreen" product. This is because it is constantly evolving and new features are being added incrementally rather than waiting a year before being added - as a new feature is developed, it's tested and released to the public. In an online environment there is no new software to download, you'll just notice that something has changed. Here is one feature that's recently been added to all online office apps. It is a feature that changes the game in terms of accessibility for many dyslexic pupils.

In February, it was reported that an 11 week study by the British Dyslexic Association found that tools available as part of Microsoft OneNote improved pupil's reading comprehension and emotional well-being. The headteacher at Knowl Hill School in Surrey said of the study "It gives them more independence. If they're really dyslexic and they can't read really much at all, then they have to have someone else interpreting for them the whole time, reading and scribing.

"This feature puts that back into their hands. They can do it themselves. And that's the key thing for me and I think that's why we saw an increase in their confidence over the period of the trial."

The Immersive Reader tool was originally only available for the OneNote desktop application but, as per the evergreen approach, it is now available from within Office online apps and also as part of the Office Lens app.

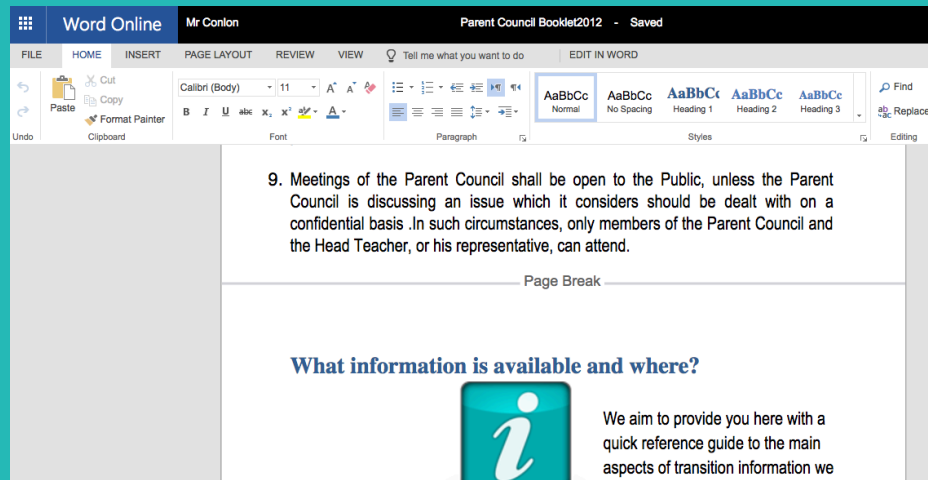
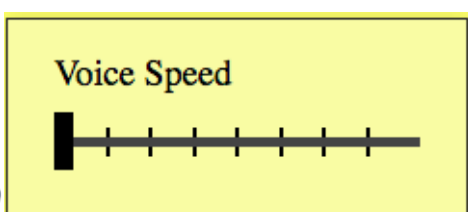
## 4 functions of the Immersive Reader:

**Read aloud** - Reads text out loud with simultaneous highlighting that improves decoding, fluency and comprehension while sustaining focus and attention

**Comprehension** - highlight syllables, adjectives, nouns and verbs within the text

**Character adjustments** - adjust the spacing between letters and the size of the font

**Colour theme** - change the colour of the page background



Meet·ings of the Par·ent

Coun·cil shall be open to the

Pub·lic, un·less the Par·ent

Coun·cil is dis·cuss·ing an

is·sue which it con·sid·ers

should be dealt with on a

Syl·la·bles

Nouns

Verbs

Adjectives

To use Immersive Reader in Office 365 just Open or create a document in your OneDrive and choose to Edit Document in Browser.



From the View Menu select Immersive Reader

This will change the look of the document quite significantly. You'll not see the usual Word ribbons and options but just those that let you access the Immersive Reader functions as described. Why not try Immersive Reader with your pupils and show them how this can support their learning here and at home.



## Text Size

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## Spacing

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## Font

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## Themes

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# COMPUTING SCIENCE WITH DRONES AND BOTS

Supporting young people to develop their skills and qualifications in Computing Science will be an important part of the success of Scotland's economic future and there are as many ways to teach it as there are industries which rely on the skills developed there. Teachers across the UK are increasingly using cheap drones and robots to develop coding skills with young people using kit that is engaging, fun and relevant. Here we take a look at just two of the many options that are now out there for coding and using technology to explore STEM learning



## SPHERO ROBOTS [Learn more here](#)

Sphero, SPRK+ and BB-8 are all programmable toys which have motors that can whizz them across the floor, turn, beep and glow different colours. Sphero comes with a Lightning Lab app that uses a visual block-based building interface to make learning the basic principles of programming approachable and fun. Add ramps, your own mazes and problems to solve and you will see your pupils engage in a way you've perhaps not seen before. Make chariots, create obstacle courses, mimic the solar system, swim across the water - endless connected fun and learning

## PARROT MINIDRONES [Learn more here](#)

Parrot minidrones are amazing pieces of kit that you can control via bluetooth apps and work in 3 dimensions. They have an onboard camera so you can visualise and capture your flight and can be used as part of problem solving activities like maze running and treasure hunts where pupils have to program solutions that will capture pre-placed images they have to capture. There are countless applications that cut across disciplines, including science, technology, engineering and mathematics (STEM), as well as film, media, and journalism. It is incredibly stable due to its 3-axis gyroscope and accelerometer and can flip forward or backward. It's also designed for safety, so you can fly it indoors or outdoors thanks to its propeller circuit breaker which automatically shuts things down in case of a collision



**Tickle** and **Tynker** are two block coding apps that can be used to control a whole range of robotic smart toys from Sphero to Arduino boards. The benefit of this of course is that pupils have a familiar interface for programming regardless of the device they are trying to control. They are also excellent apps for developing coding skills, even if you do not have a connected device.

# QR CODES IN THE CLASSROOM

## WHAT IS A QR CODE

QR (Quick Response) codes are a unique configuration of white and black blocks that encode text, link to a website, video or a file. Using a scanner app on your phone or tablet you'll get to see what that QR is pointing you to.



## WHAT DO I NEED TO READ A QR CODE



You'll need a scanner app and there are dozens of these available in app stores for iOS, Android and Windows devices. Popular apps like QR Reader, QRDR and i-nigma are all free and they all do the same thing - convert the block of code into a meaningful link or text. Many pupils are happy to use their own devices for this type of experience.

## HOW DO I CREATE MY OWN QR CODES

This is where it becomes a useful tool for teachers - you can create codes that are just simple text questions or links to videos and websites that you want pupils to view. There are many sites out there that let you create your own QR codes but we'll focus on a site called scan.me and look at its QR code generator [HERE](#)

### QR Code Generator

QR Code Content

What is the capital of France?

Generate QR Code

On the left side you input the content you want to appear as a QR code and it will generate the code, even as you type. We wouldn't go any higher than 100 words. You can then download that picture and drop it into a word document, powerpoint, website or anywhere else you care to imagine. In this example, we've just asked it to create a code for a simple question. Anyone with a scanner can point at the QR code and it will immediately convert it back into the question

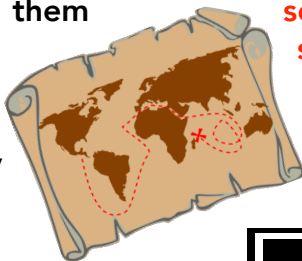
## WHY BOTHER WITH QR CODES

One simple reason is to get pupils to their resources much quicker. Typing in a web address isn't always easy and it can be frustrating and time consuming for pupils to have to do it. By using a QR code you get them straight to the content and you know that the web address will be correct for everyone. That's the first reason. The second reason is that there are lots of fun and engaging experiences you can build using QR codes which we are going to look at on the next page...



# QR CODE LESSON IDEAS

The simplest lesson is to have a treasure hunt where each code is a question that pupils must answer. At the very least it gets them moving around the school, scanning and collecting as they go.



You can then create QR Codes that are links to videos. YouTube has dozens of storybook videos where someone is reading out the story so this gives pupils some level of independence when selecting one to hear and read. Just have lots of QR code books to hand!



Get pupils to create a QR code biography poster of a person from fiction or history. Pupils can set an image of the person on the centre of the poster and have QR codes for all the videos and websites that have formed part of their research about that person. Displaying these around the class and school means parents, staff and other pupils can interact with the learning. Never have a parent stand bored outside your classroom on a parents night ever again!



Instead of having the QR Code be the question why not let it be the answer? Pupils can check their work in a new way and then reflect on their response - you'll be able to see them engaging with their answers. And remember questions and answers don't always have to be in English!

Beef up the treasure map idea by adding a weblink that is a picture of a historic map or Google Map location - you can choose map or satellite view as they both produce different web links. Easier than typing <https://www.google.co.uk/maps/@56.3774909,-3.3105251,2537m/data=!3m1!1e3>

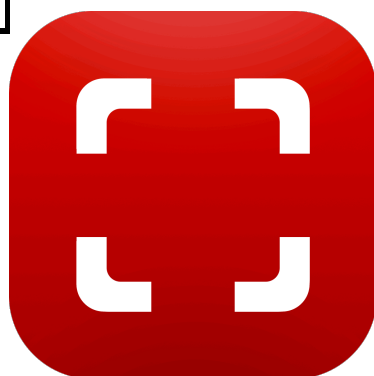


Place QR codes around the building for parents and visitors to scan - these could be links to videos made by the children, a piece of fun trivia about the school or tips and advice about how to support their young person



Other ideas:  
+ Add a code to display nutritional information to food you're selling  
+ Have pupil reviews stuck into school library books  
+ Upload "How to Videos" to Office 365 video channel and use link to help struggling pupils

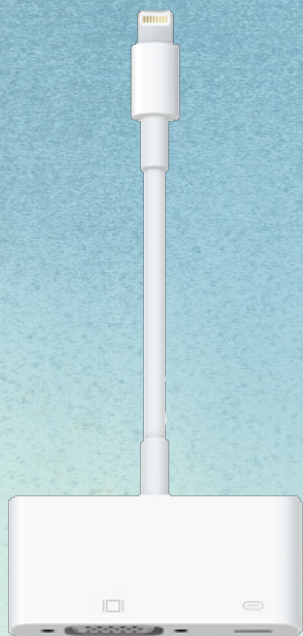
Add QR codes to homeworks and assignments to give added resources to delve deeper into a topic, give some focus to research or differentiate sources for pupils. Or put extension work around the classroom to engage your brightest with more challenging work.





# Bits and Pieces

Getting an iPad into the classroom sounds like a reasonably straightforward affair but oftentimes some of the extra bits and pieces that make life simpler are missed out. Here are a few bits of kit and tips and tricks that join everything up and help make digital learning and teaching a bit more seamless. Order any kit through IT.



## Lightning to VGA Adaptor

At some point, you'll want to connect your iPad to the projector to show off all the work the pupils have done or use it as a peer review session or use the iPad as a visualiser - no matter what the reason, this is what you'll need - plug the lightning end into your iPad and the other end into a VGA cable (the bit that normally connects your computer to the projector).

**£32.01**



## Apple TV

If you don't want to be tethered by cables you could use an Apple TV which connects via bluetooth to your iPad and lets you wander the room and still be able to mirror what is on your device to the projector. However you will also need a special connector to connect the Apple TV to the VGA cable.



**£101.70**

**£35.00** for ATV PRO connector



There are a whole host of solutions for charging devices, from expensive charging cabinets to DIY solutions using toast racks and USB charging hubs. Each to their own! It really depends on how many you have or are working with - whilst it is annoying having to buy a charging solution it will cut out a few of your problems with hunting for plugholes and charging devices all over the school. As part of the procurement framework for Scotland, XMA have a wide range of charging solutions from £400 to £1500, The Griffin Multidock 2 can charge 10 devices at a time whilst it's smaller brother, the Powerdock 5 can charge 5 but cables aren't as neatly tucked away.

**£406.00** Griffin Multidock 2

**£79.99** Griffin Powerdock 5 (from Amazon)

## Charging solutions





## Guided Access

From early years and up it can be a challenge to keep pupils inside the app you want them to work with but this is rendered much easier using an inbuilt tool within the device itself called Guided Access. This lets you open up any app for the pupils to use and then determine:



- \* How long they get to use the app for
- \* Which buttons they have access to
- \* Which areas of the screen they can touch.

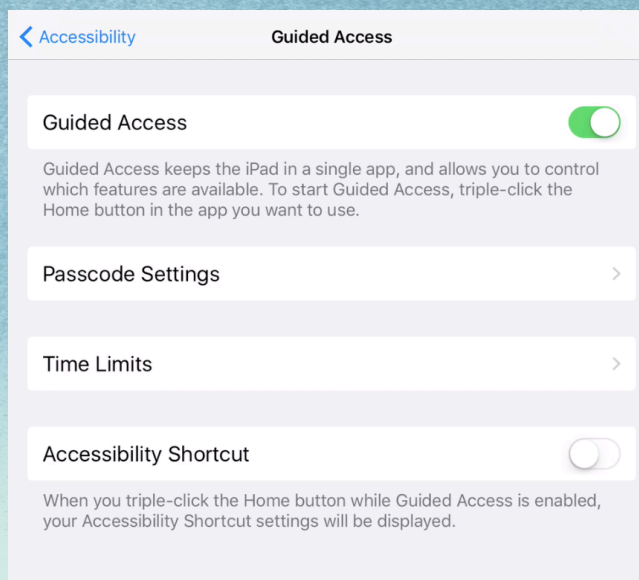
Once set up, pupils can press the home button to try to get out of the app but it won't work - you need to tap it 3 times quickly to get out of Guided Access and you must know the passcode to unlock the device. Hopefully the only people that know that are you and other staff! It essentially keeps them locked into the app until YOU decide they can come out of it.

### Access Guided Access from

Settings - General - Accessibility - Guided Access

Set the passcode

Open up the app you want them to use and then press Home 3 times to switch on Guided Access



### G-Hold Micro Suction for Tablet

iPads can be slippery things to hold and you can get fed up picking them up and putting them down so this technical marvel - first invented for waiters' trays - it fits your iPad snugly into your hand using whichever fingers you prefer. It means you've got a good and steady grip on the device and as you are presenting or walking around the class you are much less likely to drop it. These little suckers work on almost any tablet or light notebook.

£13.10





# Upcoming CPD

## **GLOW - World Class Digital Learning and Teaching Tools**

19th April	Perth High School	15:45-17:15
20th April	Crieff High School	15:45-17:15
24th April	Kinross High School	15:45-17:15
27th April	Blairgowrie High School	15:45-17:15
3rd May	Perth Academy	15:45-17:15
4th May	Pitlochry High School	15:45-17:15



## **Seesaw - Enhancing Parental Engagement**

21st March	Perth Grammar School	15:45-17:15
25th April	Crieff Primary School	15:45-17:15

## **Code-Club - Set up a club in your school with Code Club Scotland**

22nd March	Perth Grammar School	15:45-17:15
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## **SIGN UP FOR SESSIONS HERE**

### Upcoming

National Digital Learning Week - The 2017 National Digital Learning Week will take place 15-19 May. What will be your #DigitalDifference in your classroom?

<https://digilearn.scot/digital-learning-week/>

Please visit the blog, follow twitter and share with us your digital learning experiences. Find out about upcoming CPD and events about GLOW

<https://blogs.glowscotland.org.uk/pk/digitalpkc/>

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