

## The challenge: A new learning environment

Barrow Hills School has 250 pupils aged from 3 to 13 years old. It's renowned for helping children identify their strengths and celebrate those equally, be they academic, sporting, design, music or drama. It's also a forward thinking school and wanted to invest in new technology to improve its teaching and learning environment. Its management team conducted a thorough review of technology, speaking to IT suppliers, attending the BETT Show and consulting the Institute of Education.

"We were advised that Wi-Fi connectivity is essential," explains Matthew Unsworth, Headmaster. "We felt that it was imperative, too, to give each child and teacher their own device. And we wanted a device that would support handwriting; learning to write well is an important motor skill while handwriting is still used in exams. The other major considerations, of course, were safety – our children had to be safe online ¬– and costs; the technology had to be affordable."

#### The customer

Barrow Hills School – providing education for children from 3 to 13 years old. The school provides a broad curriculum and focuses on helping its children identify, develop and celebrate their individual strengths.

### The challenge

Barrow Hills School wanted to use smart technology to create an interactive, engaging and collaborative learning environment and help pupils develop a selfguided learning style.

### Samsung products and services

- Samsung Galaxy Note 10.1 tablets
- 10 x CLP 680: A4 colour printers
- 2 x CLX 9201: A3 Multifunction devices
- 37 x 60 inch SMART Signage Displays
- Samsung WLAN
- A secure Virtual Learning Environment (VLE) accessed over the cloud

#### **Benefits**

- Improved collaboration in class with shared project viewing and work
- Improved collaboration between pupils out of class with Google Hangouts
- Children focus on doing their best work as it's more easily shared and viewed
- Teachers can tailor support based on each child's progress
- Teachers spend more time teaching and less on admin
- Communication with parents is improved
- Children are developing a self-sufficient and inquisitive learning style
- Costs are being saved in printing and toners





## The solution: The connected school

The school's teachers were sent a questionnaire to gather their views on how they could use new technology in teaching. The responses were very positive. However, the school was not immediately able to find the right computing device for teachers and pupils. Aimee Tan is Director of Teaching and Learning at Barrow Hills School and says: "We looked at what was available but we felt that there weren't many tablet computers that were truly built for the needs of schools. However, when we saw the Samsung Note, everything clicked. It's easy to use, has loads of features that will help us improve learning and has a responsive digital pen for handwriting. We also love the fact that the screen can be split – showing, for example, a textbook and the internet simultaneously. Samsung also explained how we could access learning and teaching apps over the cloud using a private and secure Virtual Learning Environment that would protect our children when online."

When proposing the technology to the Board of Governors, the school's leadership team explained how the Samsung Note would help change the emphasis from teaching to learning, the invaluable life skill that it would give pupils and the safety precautions that would ensure the children would be protected when online. "The Governors were very supportive and, ultimately, gave the project the go—ahead, and we worked closely

with Samsung to create our connected school," says Aimee Tan.

As part of the overall solution a fast, secure and resilient wireless infrastructure was needed to deliver wireless access to all Samsung Note devices. Samsung WLAN was installed due to its capability of delivering fair access to multiple devices at any given time. The integration between Samsung devices and Samsung WLAN offers unique benefits and superior performance for a seamless user experience. In addition, the school uses Google Apps for Education. Each child has a 10-inch LCD display on their desk and a large 60-inch LCD screen is positioned at the front of each class. The screens are connected to the Galaxy Note tablets via Samsung's WLAN, so pupils' work can be easily displayed by the teacher. Furthermore, a Virtual Learning Environment (VLE) is accessible via the cloud. This provides access to all the children's documents, allows teachers to set and mark digital homework, provides collaboration features and enables the school and parents to communicate easily. The VLE is totally secure and all communication that takes place across it is monitored to ensure that the children are protected.

From the pupils' perspectives, the Galaxy Note tablets are the focal point of the connected school: they are a complete digital school bag that provides an all-in-one journal, text book, exercise book, creative pad for design and art, a calculator, a research tool and more.

# The results: Developing curious minds

The technology is helping the school encourage pupils to develop a more curious, guided and inquisitive form of self-learning and expression. Collaboration is also greatly improved. Pupils can discuss and share projects in real time using Google Hangouts and can work together on projects out of school hours — a capability that will greatly help children who learn better in a group.

The technology is helping teachers save time and improve teaching. They can more easily prepare lessons – so spending more time teaching as opposed to doing admin – and in class they can see how every child is progressing. So, if some pupils need more support, or others extension, the teacher can discreetly help them. And as the teacher may decide to share work from a Note at any time in class, they are finding that pupils are keen to always do their best too. Teachers are also saving time as homework can be set and marked digitally and a complete record of each child's progress is automatically stored on the VLE. Teachers have embraced the technology and meet once a week to discuss innovative ways of working using the Note – whether they've been found by teachers or their pupils.

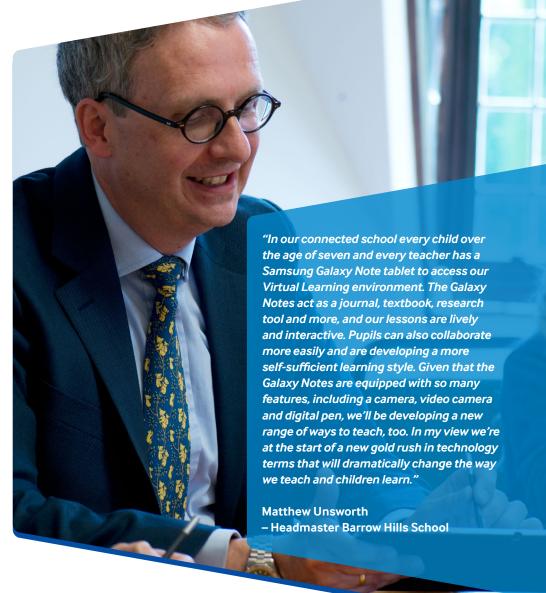
The Samsung Galaxy Note tablets are also supporting new ways to learn, with the pupils able to freely use video, images and audio in their work. The cameras are widely used by children and teachers to record and appraise activities – such as perfecting a

gymnastics move or cricket shot. Teachers can complement this by showing videos of leading sportspeople in action. As it continues to use the technology, the school is convinced that many new ways of learning and teaching will evolve so driving more value from its investment.

The Samsung WLAN solution is central in bringing the new technologies used in teaching and learning to life. It provides a fast and reliable connection for current practices and its scalable design ensures that the network will be able to fully support any future expansions.

In addition, the school has installed 10 single-function Samsung printers enabled with Google Cloud for teachers and support staff to print confidentially. Two Samsung A3 multifunction devices – fitted with Samsung's Google Cloud connector – are also available, enabling students to save and print documents directly between their Galaxy Note tablets and their respective Google Cloud folders.

"When we were recommending this project to the Governors, we explained that technology will revolutionise teaching and its delivery" concludes Matthew Unsworth. "It's helping us achieve many of our key goals including encouraging pupils to become more self-reliant learners, creating innovative ways of teaching, tailoring support to the needs of each pupil and preparing our children to go out and succeed in a digital world. I'm convinced that the connected school is the future of education."



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