

## At a Glance

## What they wanted to do

• Find a replacement for their cumbersome, slow laptops which would help technology to become a tool for learning in a classroom environment

## What they did

• Provided Google Chromebooks and access to Google Apps to class of students

## What they accomplished

- Helped children to work more collaboratively and engage in group projects more effectively
- Made it faster and easier for the school to introduce technology to an ordinary classroom environment

# Google Chromebooks help prepare students for a new era of digital learning at King Solomon Academy

## Customer

Located in Marylebone, London, King Solomon Academy opened in 2007. It is an all-through, non-selective, multi-faith school, operated by ARK Schools. The academy's mission is to provide a rigorous and transformational education that prepares pupils for success at university and beyond.

# Challenge

At King Solomon Academy, IT competency is seen as a factor in preparing students for university, for life and for future careers, and the academy firmly believes that IT skills are best learned when applied to other subject areas, where they help to advance the overall curriculum.

Having access to the right technology plays a huge part in this. However, the academy was being held back from achieving its aims, as not every student had access to a computer either during class time or at home. For students to be able to access the web, teachers would have to book the ICT suite well in advance, and waste valuable time and energy waiting for PCs to boot up.

## Solution

As a Google Certified Teacher, Bruno Reddy, lead maths teacher at King Solomon Academy, had heard about Google Chromebooks and their use in schools. Chromebooks are laptops with no hard drives where nothing is stored on the device and all systems and programmes are accessed via the web browser. This gives students the ability to access information and services within the cloud in a matter of seconds.

The academy deployed a set of 66 Chromebooks, giving each year 7 pupil their own dedicated device. Before using them intensively in class, Mr Reddy explained to parents how the Chromebooks would be used and the potential they offered. He also used the initial lessons purely to establish good classroom routines around the use of the Chromebooks. This included how to take the devices out of the trolley and how to carry them, and how to respond quickly and consistently to teacher instructions, and were essential to the smooth implementation of blended learning.

In his maths classes, Mr Reddy has weaved in the use of Google Apps for Education which are instantly accessible when you open the Chromebooks. Google Apps for Education is a free suite of hosted communication and collaboration applications designed for schools and universities. It includes Google Mail (webmail services), Google Calendar (shared calendaring), Google Drive (online document, spreadsheet, presentation, and form creation and sharing), Google Video (secure and private video sharing – 10GB free) and Google Sites (team website creation with videos, images, gadgets and documents integration).

"It is very easy for students to learn how to work the devices, and it didn't take too long before they could work on projects on their own. I use the Chromebooks during class-time whenever I think it could help the students with what they are learning as they get straight on to the browser in no time at all, and start collaborating in the cloud through Google Apps. The quick set-up time means that the flow of the lesson isn't disrupted and that valuable time isn't wasted," explains Mr. Reddy.

## **Benefits**

The academy has found that the near-instant loading of the machine, of the browser and of Google Apps has made a real difference to lesson time and the barriers Mr Reddy used to face.

"Students can turn on their Chromebooks in less than 10 seconds whereas previously we'd have to wait for the PCs to boot up, the students to log in and the browser or application to load. It's made the difference between not using the technology and using it. I don't think twice if I want to use technology in my maths lessons - there's nothing to stop me, which wasn't the case before," explains Mr. Reddy.

With access to Google Apps on any internet-enabled device, Mr Reddy has been able to leverage the benefits of cloud computing. He has created a number of exciting projects within this collaborative online learning environment, so that students can benefit from the tools available.

For instance, the class recently collaborated in creating a 'Chromebook Code', a set of rules written by students, for students, on how to operate the devices. Reddy shared a template Google Doc with the class via email, and the class split into groups and worked on a section of the document.

"We could set this all up in three easy minutes, with minimal disruption," says Mr. Reddy. "Before we had the Chromebooks, a group project would often involve small groups of students working together on one piece of paper, with one of them acting as the writer. With the Chromebook the 'pencil' is in everyone's hands at the same time, meaning each student gets a chance to feed in and collaborate, rather than the most dominant personality in the group."

From working together in creating revision flash cards through the Google Apps presentation tool, to running multiple-choice Google Forms as a way to assess student learning at the end of a lesson, Mr. Reddy is constantly thinking of new ways to make the most out of the tools on offer. Most recently, the results of a paper aeroplane competition were fed into a spreadsheet on Google Docs, so that students could input data directly and see the results instantly.

"Since the introduction of Chromebooks last year, we have run some great group projects, and we have lots of ideas for more," says Mr. Reddy. "In an increasingly digital age, it's great to see that the students I teach have been able to harness these skills in such a way, and it puts them in good stead for the years ahead."

Since implementing the Chromebooks, Mr. Reddy has launched Project 24, a new concept launched at the academy to increase pupil attainment by making the learning process more personalised through computer-based learning. The Project 24 team at the academy look to fulfil this goal with a number of innovative approaches to teaching including blending the learning so that there is a mix of teacher instruction and instruction via the computers. Mr Reddy's classroom makes the most of Google Apps (including YouTube, Forms, Sites and Presentation) and the Chromebooks to provide the students with maths video tutorials that are backed up by teacher intervention, independent student practice and group work.

Mr. Reddy adds, "Boot-up speed, battery life and reliability make Chromebooks the best option for schools. Compared to other technology and other operating systems, the Chromebooks work every time. I've had

## About Google Apps for Education

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For more information, visit www.google.co.uk/a/edu

# About Google Chromebooks

With hardware and software optimised for the web, Chromebooks provide the best experience for cloud applications and extend the ease of management and flexibility of the cloud to the PC.

For more information, visit www.google.co.uk/chromebook/featurestry.html#features flawless reliability from these machines and haven't heard the dreaded 'Sir, my computer has frozen' since I made the switch."

"I think Google Apps and cloud computing is preparing my students for the collaborative, online environments which are becoming increasingly relevant for those in higher education and the workplace of today. The Chromebooks and Google Apps have already had a hugely beneficial impact on their learning."

"The final thing I would say, which isn't something I was really aware of before, is that there is a rock-solid community of other Google educators that I tap into on a regular basis. They inspire and support one another so there is never a feeling of doing this alone. There are so many teachers in the UK (and abroad) doing some phenomenal things with Chromebooks and Google Apps and the potential for building on what we're doing at KSA is almost limitless."

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