# **Wheatley Park School**

### Looking for simplicity, finding new ways to learn

Wheatley Park School, an academy for years 7–13, sits five miles east of Oxford, England. The main school building is from the 1970s, but the campus also contains a Georgian mansion housing the arts, a Georgian coaching house for modern foreign languages, and the remains of a medieval moat. Mixing hints of grand architecture with modest means, the school (originally founded in the 1960s) is a charming and often dramatic patchwork of many eras.

While maintaining a respect for traditions, Wheatley Park wanted to enter the 21st Century technologically and find tools to make learning easier for teachers and students. After experimenting with a handful of Chromebooks, interest spread like wildfire. Last year, Wheatley Park was able to go one-to-one for all students, resulting in many day-to-day changes that, as a whole, dramatically changed how students learn.

### School facts (public school)



2 years using Google Workspace for Education100% Students using Google Workspace for Education



### How we got here

In 2010, Wheatley Park suffered from an outdated network and an impractically long domain name full of dots and dashes. Roger Nixon, Director of IT, purchased wheatleypark.org for £19 and started playing with Google Workspace for Education. A year later, the whole school was on Gmail, and progressively, Google Workspace for Education became the go-to for just about everything. In 2012, Wheatley Park bought a single trolley of 30 Chromebooks, but soon, just one trolley was not enough. They proceeded carefully, since some parents and teachers expressed concerns that this new technology could be a distraction for students and dilute the quality of learning. But as everyone actually tried out the Chromebooks first hand, a consensus grew that they just made everything simpler, from digital textbooks that update automatically to online to-do lists that teachers can help monitor.

All the while, teachers save precious time putting together multimedia lessons in Google Slides and marking students work online. Soon, Chromebook trolleys were in extremely high demand.

IT started thinking about going one-to-one, but "We knew that we couldn't afford to buy Chromebooks for everybody in the school, we just didn't have anywhere near the money to do that," Mr. Nixon explained, so the school devised a plan that encouraged students to buy or lease their own devices. "We wanted to make sure they had something invested in it. And we could actually give them a good deal. Particularly with the youngest students, we have about 80% buy in—which just about makes it affordable."

Head Teacher Tim Martin emphasized that they "needed to be mindful of not further disadvantaging our already disadvantaged families. There are about five to ten different options for students, ranging from: you pay a deposit and you just have the machine on day loan through to full purchase (with some element of subsidy for families that are entitled to extra support). Everybody has one, and we make sure to remove financial barriers where barriers are in place."

I've seen a huge change in engagement, with students following along on Chromebooks as we're working."

Katie Clifton Rabone, Science teacher

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#### Everything gets easier

At Wheatley Park, teachers and students speak passionately about simplicity. Chromebooks make their lives dramatically easier in so many ways. Chris Bateman, Head of Technology, Enterprise & E-Learning, clarifies, "It's made a massive difference in lessons. For me, it's not about revolutions in teaching. It's just about making things really simple. Teachers work hard. Students work hard. It's just about making it really simple."

Science teacher and "Google ninja" (per Mr. Nixon's introduction), Katie Clifton Rabone, points out an unexpected benefit of Chromebooks, "Just having my lesson in front of them instead of having it on a screen—it sounds small—but I think it helps them engage more because it's closer to them. I've seen a huge change in engagement, with students following along on Chromebooks as we're working."

"They make everything slightly easier," Mrs. Clifton Rabone continues, "so rather than there being one big thing, everything is just a little bit easier. So it's easier to make presentations. It's easier to share them with people, it's easier to add animations to them, and it's easier to record a video if I wanted to. It's easier to not have to print and to say, 'actually, the diagram I want you to look at is just on this slide.' All of those things are tiny gains and maybe save me a couple a minutes of photocopying or handing things out, but they make a huge difference to the running of my lesson because I can say, 'everything is on this presentation, and all of your work and all your homework is in Google Classroom.' So all of those incremental gains make a huge, huge difference to my experience as a teacher."

#### **Sledding and STEM**

On Sunday, December 10, 2017, a major snowstorm hit the UK, bringing much of the country to a standstill. For Oxford, this was the first snowstorm in six years. Head Teacher, Mr. Martin, needed a quick and simple way "to see if we had staff to run the school, so we just pinged out a Google Form and very quickly had 90 responses and a pie chart." With treacherous roadways and only an intermittent return of power, school was closed Monday and Tuesday and didn't reopen until Wednesday morning.

Although the storm caused some chaos and forced Mr. Nixon to rebuild the school's older Windows servers wrecked by the on-off of the outages—the Chromebook ecosystem, he reported, was totally fine—all in all, Wheatley Park came through with flying colors. The school set up Google technology to make everyone's lives easier, and under these unusual circumstances, it did exactly that. Teachers and students could access all of their work, share files, and collaborate whether snowed in or not.

Initially unclear how long the snow days would last, Mr. Martin, wanted to establish some immediate normalcy. Having Chromebooks "was wonderful to not only satisfy parents but also, genuinely, for learning not to halt," he said, "The message to all staff was to push out homework to students. Our slogan for the Chromebook initiative is 'everyone learning everywhere,' and our hope is that we're increasingly breaking down the barriers, in a way, between the school environment and the home environment—and all of it can be a learning environment." Teachers responded by distributing work through Google Classroom and directing students to watch lessons on video on Google Drive or YouTube. "The other day when it was snowing, we had a chemistry lesson," Amber Faucheux, a year 12 student, began, "It was an important one, so Mr. Nixon actually did a live lesson on our Chromebooks. I was in bed, and we were basically just having a full lesson." Mr. Nixon explained how this virtual class worked, "I set up a meeting with these guys. I had my touchscreen Chromebook with the Jamboard app running. I used Cast for Education to cast that to my laptop screen where the meeting was running, so I was sharing my full screen. I also had a video in the background running to record it all, so if they can't be there for the meeting, they have my epic videos. That's what they watched prior to coming to this lesson."

Although students reported there was plenty of sledding to be had for all, Mr. Nixon confided that "Some parents complained about them being sent too much work on a snow day."

"We were sent a ton!" a year 12 chemistry student chimed in. But here we were, first day back, and the whole class was up to speed.

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Tim Martin, Head Teacher

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#### Learning gets personal

Nick Bowater, head of the science faculty, and Lucy Llewelyn, teacher of history and politics, both agree that the most exciting change with Chromebooks and Google Workspace is being able to better meet individual students' needs. "When we do interventions and catch up sessions," Mr. Bowater said, "it's not about, 'come to science after school.' It's about this group needs to do plots and graphs after school, and this group needs to learn physics formulas. It helps us to target individual groups of students that have common needs."

Students who are behind and students who are ahead both benefit. "If somebody is finished, I'll send a knowledge quiz on what we're doing, and they can keep testing their knowledge. If someone is struggling, I might send them an extra resource, or I'll go and help them," Mrs. Llewelyn explains, "Since Chromebooks, their knowledge has improved a lot. It's a lot easier to test their knowledge, see where they're going wrong as a group, and I can focus the time of the things they need rather than the things they don't."

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Lucy Llewelyn History and Politics Teacher

### Duke of Edinburgh Award

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#### Apps we love

- In science classes, students use wireless temperature and PH probes with their Chromebooks and the SPARKvue app to collect, analyze, and visualize data all in one place
  - Instead of a more traditional whiteboard, students take notes using Sketch—then the notes are filed away in Google Keep where they're never lost

### **STEM Apps**

At Wheatley Park, a Chromebook with a few Android apps can replace many single-function math and science tools



My Script Calculator solves mathematical operations that you handwrite on screen



Science Journal lets a class measure the decibels of sounds throughout the classroom



Oscilloscope allows a physics class to observe and chart voltage over time

### Next generation Chromebooks in action

As you walk around Wheatley Park, crisscrossing courtyards and going building to building, Chromebooks are in every classroom—often out on a desk next to a textbook. You can walk into a biology class and catch the teacher using a webcam to project the small-scale experiment onto a large screen (so everyone can see) while recording it for the students to watch again later. In Mr. Nixon's year 12 chemistry class, students are on Google Classroom doing an experiment with test tubes of cyclohexane and silver nitrate—they're using Chromebooks every step of the way, from tracking and writing up the results to taking photos of the solution at different stages. In another room, Sam Czeres's math class uses the Chromebooks' touch capability to solve problems directly on the screen on a math app he created, and then Mr. Czeres will be able to mark the work online.

Down a different corridor, a history class studies Germany at the beginning of WWII, and students are using Touch on Google Slides to highlight different parts of a model essay, learning how to weave together opening points, explanations, and supporting details. In a large music room, a teacher is rehearsing the band. At home, those same students learn notes and practice playing with an Android app on the Chromebook screen itself. Even in physical education, students use Chromebooks to analyze their diets and track personal exercise plans, and there's often a clutch of students using video to record themselves kicking a ball around. At Wheatley Park, no matter where you turn, Chromebooks are an essential part of the landscape.



#### It all comes together

Wheatley Park began down a path of Google Workspace for Education and, later, Chromebooks to make learning easier and more engaging for students and teachers. In a relatively short time, they have arrived at one-to-one. The school doesn't have a flashy budget and, until not long ago, was rooted in traditional learning models. But Wheatley Park is a good example of how some very determined teachers ("ninjas," if you will) can work a bit of magic and change how students learn. And sometimes, it takes a snowstorm to be reminded just how profound those changes are.