

King's High School

BRING YOUR OWN DEVICE

and Blended Learning at King's High

Introduction

First and foremost, the Bring Your Own Device (BYOD) Scheme at King's is about our students learning and achievement. It is not about the technology.

Since the implementation of BYOD, our strong belief that access to personal devices would enhance the excellent teaching and learning that is already happening in our classrooms has been demonstrated very clearly. We will continue to employ the teaching and learning methods which have been so effective in ensuring that students, year on year, achieve at the highest levels. Our approach aims to provide access to the most appropriate method for each learning activity – using technology alongside class discussion, written and practical work.

Our students are living in a world where access to technology as an aid to learning is becoming increasingly important, as is digital competency in the world beyond school, for which we want to prepare them as fully as possible. Appropriate and safe use of technology will allow our students to get the most from an already rich curriculum. In recent years, there has been a huge increase in the quality and availability of electronic educational resources, and we use these extensively at King's. From subject-specific packages like Linguascope (MFL), Digital Theatre (Drama) and ArcGIS (Geography) through to the increasing amount of material shared online by our teaching staff, these resources enhance every students learning.

For many learning activities students relate to - and enjoy using contemporary technology both at home and at school is vitally important. However, they also need guidance and support to use this technology constructively and safely, and to make considered choices. We believe that the benefits of accessing enhanced technology for our students are powerful, but equally important is the time we invest to educate them on becoming digitally literate and digitally safe throughout their time at King's. In partnership with parents, we will prepare our students to become effective and safe users of technology in their learning.



Blended learning at King's

Blended learning incorporates online tools and applications with traditional teaching methods so that students can learn most effectively. It aims to provide the best educational experience for every individual learner. Alongside knowledgeable and expert teachers in their fields, having technology at the tips of their fingers in the classroom has a profound and positive effect on the way that the students can learn.

This booklet will provide you with a greater understanding of how technology is used in the classroom at King's High.

We are already teaching our students to become confident, creative, independent learners, and having instant access to the internet, puzzles, guizzes, video clips, infographics and many more online tools will allow them to think outside the box even more. It will empower them to actively seek out the answers to their questions and share their ideas in an unlimited number of ways producing collaborative documents, creating webpages, blogs, videos, connecting to classrooms around the world, and much, much more.

Bring your own device

We are clear that for our students to become successful members of society we need to help them develop an understanding of how to use technology effectively and in ways that support their individual needs and aspirations. BYOD makes the latest online tools and resources easily accessible, both inside and outside the classroom, regardless of the device that they are working on.

Enabling students to choose and make use of their own personal device for learning has a number of benefits. Some students may already be familiar with certain technologies that they have used at home or in school. Other students may opt for a particular device, dependent on their subject choices in KS4 and KS5. Having the option to choose their device provides the opportunity for students to go on to explore more creative and challenging uses of these technologies.

Regardless of the devices that they are using, students will be able to access school resources at any time and from anywhere via Microsoft Office365. King's also uses a platform called Classlink to provide the students with access to a vast array of browser-based tools, applications and digital media that the school subscribes to.

Our virtual learning environment

King's High School

All students and staff have a school Microsoft Office account, providing them with access to 1 terabyte (1TB) of cloud space and the ability to install the Microsoft suite of applications onto their device. Teachers and students can create, share and collaborate on resources though a wide range of applications. Students can create online forms and voting polls via Microsoft Forms, whilst teachers can pose questions or initiate debates and discussions about a topic before a lesson has begun. Microsoft Office can help students to organise their work and homework assignments, whilst providing access to the resources that teachers have used in their lessons when they come to revise or consolidate their understanding. It is also a safe place to share useful links and revision notes with friends.

> Working alongside Microsoft Office is ClassLink, the platform that delivers instant access on any device to all the web resources that students will use both in and out of school. Everything they need can be easily organised in one place, without the need to remember all the passwords that they may have for the multitude of websites and applications that they use.

> > Meanwhile, Planet eStream is a powerfully simple and secure platform that makes departments' media content accessible and engaging for all students. Departments can develop their own secure, branded 'YouTube style' media library, featuring video on demand, live streaming, digital signage, interactive learning tools, conference and lesson / lecture capture functionality, and TV and radio recording.





IT in the King's classroom

Teachers at King's enjoy significant and effective use of IT in their lessons. Every teaching classroom has a fully interactive whiteboard, with casting facilities, that allows teachers and students to share their work on the board with the class when invited for example.

In all subject areas, shared online documents and resources are already being used to encourage collaboration amongst all members of the classroom. Teachers can comment on individual students' work online, providing personalised feedback and giving students the opportunity to reflect critically on their work. Similarly, teachers are sharing increasing amounts of information electronically though tools such as OneNote or Teams. Students will therefore be able to view and use these resources conveniently every lesson, as well as at home.

Quiz apps, such as Kahoot or Socrative, are popular in many subjects for a quick starter or plenary activity, with some students playing against each other or writing their own guizzes for their peers. Students can also use their touch-screen as a digital "mini-whiteboard" using Microsoft Whiteboard, which is incredibly useful for brainstorming ideas.

Below are some subject-specific examples of what is possible in lessons when every student has their device with them in the classroom.

Within the **English** classroom, the BYOD environment will enhance the existing teaching and learning experience across all three key stages. At all levels, students will benefit from learning core research and essay formatting skills that will improve any individual or group project, research piece or formal essay-based

work. Being able to immediately access online dictionaries and relevant websites will enable students to better engage with the layers of meanings in the texts studied in class. Students will interact with digitally enhanced tasks ranging from class and group digital annotation of texts to collaborative writing using shared online documents. Within KS4 and KS5, students will additionally benefit from the use of online textbooks to inform the teaching of English Language allowing for a more interactive approach to textbook style lessons, the creation and sharing of collaborative planning and revision documents, and interacting with exemplar materials from examination boards.

In Mathematics, students can explore ideas using collaborative areas in Microsoft OneNote, solving equations interactively, with every student contributing to the lines of working, whilst lesson resources and worked examples will be readily available on student devices for them to annotate. Various mathematical extension and enrichment activities can be shared online to help the girls progress from one key stage to the next or to explore beyond the confines of the syllabus. Students will also utilise a number of mathematical applications such as Desmos and GeoGebra.

BYOD delivers exciting opportunities for Science teaching at King's. As well as making daily use of the digital resource sharing through OneNote, we are able to use various Science-specific apps to view animations and explanations, review knowledge and carry out retrieval practice. We are developing use of Educake in KS4, which allows us to set, mark and provide instant feedback on specifically focussed questions. Students are also able to individually access many valuable online tools so they can view a molecular model of a reaction as it happens or watch a 3D animation of a biological process while learning the anatomy, or perhaps a simulation of an explosion on a larger scale than we can safely carry out in the classroom. Students can connect their devices to our datalogging equipment to take digital

measurements from experiments and data can then be immediately processed and graphed in applications like Excel. With their cameras, students are able to record practical methods or apparatus, photograph results, use time-lapse or slow-motion to view slow or fast processes or even make their own stop-motion animations, making science learning fun and engaging.

Modern Foreign Language lessons are dynamic and fast-paced, with listening, reading, writing and speaking addressed in addition to grammatical awareness, and BYOD makes any room in the school a potential "pop up" language lab. Having a device in every lesson gives students instant access to self-quizzing and self-marking activities

using Languages online them to independently research vocabulary using wordreference. com. They can watch and listen to language videos and complete exercises at their own pace, which is particularly relevant in KS5 when students have to control the listening material in their listening examination. Through

"Having technology available in every and Linguascope, or allows *MFL lesson means that students can* be independent, researching their own vocabulary and using self-assessment tools to monitor their progress. The opportunities now available for live communication with our contacts abroad have enhanced our pupils' understanding hugely."

- Mrs Kate Gibson, Head of MFL.

between current day problems and the historical collaborative documents students and teachers share good use of language, research for perspectives that are at the heart of History cultural knowledge tasks and current affairs and Politics teaching. The use of technology articles from the target language countries. In the in and out of the classroom for collaboration post-pandemic world where travel abroad is still via shared documents and selected online restricted, Google Maps provides a street view apps will also allow students to exchange and of major cities of interest to our curriculum and discuss their ideas as they analyse and evaluate we are able to visit cultural, artistic and natural sources, whilst teachers can provide critical and personalised feedback on their work in real time. sites from the comfort of the classroom, whetting our students' appetites for travel in the future.

In **Geography**, students across the key stages will be able to present data using Geographical Information Systems software such as ArcGIS. Data collection for fieldwork can be supported using apps such as Survey123 or Surveymonkey and valuable photographic analysis is possible

through the annotation of images and the production of collages. Students will draw and analyse graphs on their device, explore map stories, and use Digimap to develop their map analysis skills. Valuable research and reading will be possible with a device at their fingertips, whilst students will also be able to go on virtual reality fieldtrips to all corners of the world to bring their case studies to life. Even stop-motion animations of geographical processes are possible using the camera functionality.

In History and Politics, students are encouraged to make careful and critical use of the abundance of online digital sources to enhance their work with print and other

media for historical and political investigations. As students do this, the aim is to develop their ability to discern the reliability, utility and impact of such sources, as well as how to deploy this information effectively to increase their understanding of the past and the present. This growth of students' 'media literacy' is intended to help them make better connections

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In Psychology opportunities for independent research in the classroom are opened up with immediate access to science journals through JStor and Google Scholar. In addition, 'roundrobin' essay writing activities are possible on collaborative documents. The use of additional resources in our digital textbook gives students "Science teaching is enhanced in a world where technology can instantly be used to support teaching and learning and we are thoroughly enjoying the development of a range of new tools for our students."

- Mrs Annabel Sims, Head of Science.

practise and feedback on application style questions as well as embedded videos and articles to read as enrichment. Digital storage via the OneNote platform helps many students keep organised by following the teacher's organisational structure. Of course, fun is also to be had using applications like Kahoot and Quizlet which provide not just friendly competition but also consolidation.

Students of Philosophy and Theology can

also make similar, effective use of collaborative documents in a subject in which students are constantly sharing and evaluating ideas through discussion. This enables students to critique and discuss their peers' arguments whilst also keeping a record of our debates. We also make extensive use of platforms designed to draw together student contributions, such as Mentimeter enabling discussion and "voting" on a range of ethical issues which are debated in class, making an exciting development to our debates in lessons. Having access to real-time news articles enables our students to draw on fully up-to-date information on topics that are sometimes changing minute by minute.

The use of devices in Latin continue to open up a range of opportunities for students. Those studying at GCSE and A Level use collaborative documents, such as OneNote and Microsoft Whiteboard, to analyse and annotate translations and literary texts together. Students in Key Stage 3 and Year 10 regularly access the Cambridge Latin Course online textbooks and website, and of course a wealth of excellent research material about the Roman world. For students right across the school, the Quizlet, Kahoot, Memrise and Blooket websites are used regularly to support the learning and consolidation of vocabulary in a variety of fun and stimulating ways. Access to Classics in the News features keep students up to date with recent developments in the Classical world as well as new archaeological

finds. Creative project work is displayed on virtual notice boards using Sway and students utilise media players to enhance their studies and bring the ancient world alive through 3D imagery. Ancient Greek is also taught using on-line grammar testers and on-line textbooks. Greek myths are visualised too within Classical Civilisation pursuits.

Devices are used to complement the compositional work that students complete in the school's Music Keyboard Studio. GCSE and A level students have Sibelius installed on their devices so that they can complete work at home. The program Auralia is used to improve theoretical understanding and aural skills. Focus on Sound is an excellent digital resource for students in all key stages to learn, research and stretch themselves in areas such as music theory, specialist vocabulary, instruments and music history. YouTube, Spotify and Radio 3 are some of the other invaluable tools that can be utilised in class for developing musical knowledge and repertoire. Personal devices are also used for the organisation and storage of written notes and tasks.

In **Drama**, all key stages will be using their devices for research through applications such as Drama Online whilst Digital Theatre provides access to archive performances at any time. Coaches Eye allows students to record and reflect on their work and similarly sound and video recording can be used in **LAMDA** to help students to evaluate their performances. Collaborative and shared digital resources are already used to give students access to lesson and homework material, with some homework tasks being quickly and easily uploaded electronically.

Personal devices in the **Art** classroom allow students to photograph and record practical work as it progresses and cast their artwork to the group when presenting in crits and tutorials. There is a myriad of digital opportunities in the classroom: researching artists, obtaining images and information is a key assessment objective at GCSE and A-level. Students can experiment with different colour ways and effects using photographic software, record films and edit to a high standard (a component of the Fine Art Endorsement) or use Adobe Photoshop Sketch to create expressive drawings similar to those you would do on paper. This will also be extended through the use of Procreate on the new iPad pros.

The camera and video recording functionality will be used in **Design Technology** to document ongoing practical work for evaluation at a later date. Teacher demonstrations of key processes can also be provided for students to review independently at their own pace and to stimulate discussion. Focus eLearning is a large interactive library of subject specific resources that will be at students' fingertips, as will technologystudent. com, digital textbooks and the wealth of information on the internet when researching in lessons. Students can create and collaborate on digital mood boards and mind maps when exploring design contexts or individual designers.

In core **Physical Education** lessons devices will enable students to carry out performance analysis - capturing their own performance through still image or video to compare to 'perfect models' in sports such as gymnastics, dance and trampolining. In A-level and GCSE lessons students can use their devices to assist with the learning of bones, muscles and ligaments using the touch screen functionality to label interactive documents, whilst the use of 3D and 4D anatomy software will be used to bring the syllabus to life. Collaborative documents are already fundamental to the completion of the Analysis of Effect Performance in GCSE, and the Evaluation and Analysis of Performance for Improvement in A-level PE, where teachers can provide detailed and personalised feedback on students' work in real time as their work develops.

In **Food**, the Nutrition Program will be readily accessible for nutrition analysis and the costing of recipes, as will the digital textbooks that the students will use for the GCSE and Level 3 qualifications. Year 8 and 9 will be working entirely online with a digital recipe book and workbook where they can collaborate with their peers or their teacher, submit homework tasks and receive personal feedback all in one place.

In **Business and Economics** students use personal devices make notes, draw diagrams, make presentations and collaborate at the point of delivery in lessons, but often the most effective and efficient use of devices is when information can be researched and pulled up quickly when an idea occurs in a class discussion; sometimes checking data. Electronic articles, journals, dedicated YouTube channels and resources such as FT.com can be accessed instantly, all of which help students enormously.

The **Computer Science** department utilises digital platforms in all key stages to deliver the schemes of work. This ranges from computer programming using software such as Blender and Python, to webpage editing in Notepad. All lesson resources will be stored in OneDrive, whilst Class Notebook will be used to deliver the lesson content, meaning that students can access lesson plans, activities and homework both in lessons and at home. Microsoft Forms are used regularly to provide effective and engaging summary activities with immediate feedback given to the students to support their progress. ClassLink also hosts links to a growing number of applications used to deliver Computer Science topics in KS3.

"Teaching and leaning has been enhanced further by our introduction of BYOD. Our students can access technology seamlessly in lessons to collaborate, create and analyse more easily and efficiently. Using technology in this way provides so many exciting, interesting and transformative opportunities."

- Dr Anthony Chamberlain, Director of Studies.

IT and Learning Support

IT can be transformational for students with SEND. King's Learning Support Department benefits from BYOD in two main ways: both individually and by working in partnership with all the other departments. The Learning Support department has links to all school schemes of work, specification points, lesson notes and PowerPoint slides, tests and assessments via SharePoint and therefore the support we are able to offer our students is second to none.





The department's highly effective 'Boost Programme' relies on our Boost support staff accessing these online resources when working with small groups of students and 1:1. Practice questions, support materials and collaborative documents can ensure both continuity and the enhancement of these sessions.

OneNote access for our SEND students is invaluable. All teaching resources are freely accessible for students, with lesson slides, revision guides, keyword lists and glossaries often sourced from these shared resources. Students who perhaps need greater support with organisational skills can be directed to homework reminders and scaffold resources and support with revision and study skills can be tailored closely to an individual's need.

ClassLink allows students and staff to access specific learning support apps and websites at any time. This complements our department's direct teaching but also allows students to work independently in the Library and Learning Space during their study periods, on any activity they decide to revisit.

It is the nature of the department to receive many specialist reports. BYOD will enable students to access specialist online material in line with any report recommendations. For those who are eligible for certain access arrangements (for example, a word processor) the scheme will support the acquisition of touch typing and processor skills. All SEND students will have access to Office's powerful tools and features such as screen overlay filters, font spacing and dictation. For those who may find the writing process difficult or have challenges with speed of writing, an inkable touch screen can be liberating.

We all continue to be incredibly excited about Bring Your Own Device at King's. Given the extent to which we use IT in learning, BYOD has allowed us to continue to evolve and is transformative for both students and staff.



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