

Year 8

In the autumn term students will learn about spreadsheet analysis. They will use google sheets to collect, analyse and present data and information. They will use formatting, formulas, functions, charts , conditional formatting and trends. This will be based on a theme. They will analyse budget, income, expenditure and create a seat booking system. This will be built upon their experience on using google suite in year seven. The ability to analyse data will equip them with valuable skills that they can use to represent numerical data in any subjects with graphs / charts and colour coded formatting and make important decisions based on existing data and computer modeled predicted outcome. Spreadsheet is also a useful tool to analyse data in everyday life, such as when managing personal finances.

In the spring term students learn about web technologies such as HTML and CSS. They will then create a website using a site builder such as Simplesite, Squarespace, Weebly or Wix. Students will learn about responsive design features of a website - what to include and things to avoid. Students will use the skills developed in year 7 on image processing to ensure images are fit for purpose and give a consistent and professional look and feel to their website. Web development gives students the opportunity to express ideas or information in a creative way on the internet. They will learn about various HTML tags and use them to create a basic functional page with images, hyperlinks, tables, lists and other contents. They will then use CSS to convert the links into a stylish navigation system, and the overall look and feel of their website.

In the summer term students will create their first app for smartphones. Students will create and control buttons, text, images, sounds, and screens in JavaScript using either blocks or text. Students will follow a guided tutorial to learn all the skills and at the end of the tutorial students are given time to either extend a project they started building into an adventure or "Personality Quiz" app. They also continue on to build more independent projects or projects featured on the code.org/applab page. In this unit the students will use the skills they developed in programming games in year seven. Throughout the unit, they learn to design user interfaces and write simple event-driven programs. Students will learn practices like debugging, pair programming, and collecting and responding to feedback, which they will be able to use throughout the course as they build ever more complex projects. The unit concludes with students sharing the apps they develop with their teachers and classmates.

In the last half term of the year students will work on microbit. The BBC micro:bit is a pocket-sized codeable computer with motion detection, a built-in compass and radio and Bluetooth technology. Students will write code, download into the device and will see the results immediately. We aim our students to get creative and express themselves digitally. The micro:bit introduces our students to how software and hardware work together. It has an LED light display, buttons, sensors and many input/output features that, when programmed, let it interact with them and their world. The skills acquired in this unit will be the foundation in studying robotics or physical computing in the future in year 9, GCSE Computer Science or beyond.