

BERLIN BRITISH SCHOOL

Course overview

ICT (information and communication technology)

Grade 6 Autumn – Summer Term:	Rationale:
<p>Unit 1: Safety in Secondary:</p> <p>The students are brand new to the Secondary school, armed with their new personal laptop devices.</p> <p>This introductory unit covers proper Laptop etiquette and safety when using these devices and online services both at home and at school.</p>	<p>Learning about both the physical and digital dangers that can occur when using a laptop will help to make students aware that they are entering a new digital world as they become teenagers and are therefore more responsible for their property and actions.</p> <p>Students will also receive orientation in using their laptop, including upkeep maintenance as well as proper research citations and email etiquette for the entirety of their school life at BBS.</p>
<p>Unit 2: Game On!</p> <p>The students are introduced to video game development and programming, using Scratch programming (Drag and Drop Block Programming code) to design and programme a fully functional video game.</p>	<p>This introduction to Programming concepts and programming language will help the students to understand how the programmes and software that they use and interact with on a daily basis are created.</p> <p>Students will also be able to express themselves creatively in the development of their own video game to share with others.</p>
<p>Unit 3: Lights, Camera, Action!</p> <p>The students become ambassadors for their local area, creating short promotional videos for the 'BBS Tourism Board', learning video-editing skills and techniques to create their projects, based upon a local attraction of their choice.</p>	<p>This unit will introduce the concept of working for a client, designing their project to the requested specifications and within structured guidelines.</p> <p>The students will also learn video editing techniques that will be useful in their work and projects in this and other subjects in the future, as well as reinforcing some of the etiquette concepts learned in the first unit.</p>

Grade 7 ICT Unit Overview

Grade 7 Autumn – Summer Term:	Rationale:
<p>Unit 1: Living in a Digital World:</p> <p>The students are entering the age range in which they can sign up for social media accounts or use chatting services online.</p> <p>This opening unit covers proper use of Social Media, how it can impact the daily lives of the students and how to respond to issues that may arise from using it.</p>	<p>Regardless of whether the students already have social media accounts, their use of Social Media may expand dramatically as they enter their teenage years, becoming an increasingly important part of their lives and how they interact with others.</p> <p>This unit will discuss some of the situations that the students may encounter, the consequences of online actions on offline life and make the students aware of some of the dangers that can arise.</p> <p>The students will learn about designing and creating a presentation that will inform younger students about these issues and presentation techniques for upcoming projects in their education.</p>
<p>Unit 2: History of Computers:</p> <p>Technology is one aspect of the world around us that is constantly changing, never the same from one moment until the next.</p> <p>This unit will take a look at where computers began and their development throughout the years until the present day and the near future, how computers have developed and will think about where they will go from here.</p>	<p>Learning about the history of the technology that they have been using every day of their lives can be an enlightening experience for the students and change how they see these tools that they have grown up with.</p> <p>This unit will look at technology as a whole, the development of computers and software and its impact upon the world.</p> <p>The students will then design and create an interactive timeline which will showcase the impact of computer technology upon the world. They will also develop a 3D model of a piece of technology that they think will exist in the future.</p>

Unit 3: Virtual Reality:

The students are introduced to 3D animation and model programming, creating an interactive environment that users can experience using VR equipment.

This is a Cross-Departmental Unit, between English and ICT, in which the students recreate an environment from their English novels, showcasing their understanding and imagination of the themes of the stories.

Building upon the Scratch Programming that was covered in Grade 6, yet still easy to pick up for new students, the students will expand their work with a 3D space and 3D Models, animating and programming them using Drag and Drop style programming language.

In collaboration with their English lessons, the students will consider how to best interpret and showcase the themes of their chosen novel and how best to represent their imagination of the scene they chose to their target audience, as well as make it an interactive and fully animated experience.

Grade 8 ICT Unit Overview

Grade 8 Autumn – Summer Term:	Rationale:
<p>Unit 1: E-Safety:</p> <p>By this age, the students have adopted the Digital World as their domain and have will feel more secure in their understanding of it and how to live in it. However, there are still dangers that they must be aware of.</p> <p>This unit will cover what to do when the students encounter these dangers, such as phishers, pharming, hackers and viruses. They will also discuss mature content on the internet and what to do when they encounter it.</p>	<p>By this age, over 90% of students have encountered some form of illegal activity online, such as people asking for their personal information or viruses on their computers, or “adult” content.</p> <p>This unit discusses how to deal with such scenarios when they encounter them, how to avoid dangers and problematic scenarios that may arise as well as help to prepare them for their upcoming IGCSE years and be aware of what techniques and issues are allowed and which are not in these important exam years.</p> <p>The students will create a multimedia presentation discussing these issues with the aim of making others aware of the danger and how to react to it.</p>
<p>Unit 2: Playing the Market:</p> <p>One of the most important pieces of software in use in the planet today are spreadsheets. There is no business or workplace that does not use a spreadsheet in some fashion.</p> <p>This unit will introduce spreadsheets and its main functions to the students through the medium of the Stock Market.</p>	<p>Through a competition of stock investments, the students will accumulate data that they can use to learn and understand the functions and features of a typical spreadsheet programme.</p> <p>This unit will help to prepare the students for future work that will require an understanding of spreadsheets, both in education and in the workplace.</p>

Unit 3: Coding is an Art:

The students are introduced to programming using a Programming Language: Processing. Learning the language, its syntax and meaning, the students will focus on putting together their own Graphic Software programme.

This unit covers a full introduction to programming, using what they have learned to create a programme to compete with existing products and can be used by others for completing tasks.

The students have worked on programming units in their previous years using a Drag and Drop format. However, this unit is their first introduction to programming using just the written code. This is done to prepare them for the upcoming IGCSE course's programming requirements.

This unit will discuss how developers and programmers work to create a programme to compete against existing programs in the market. Students will discuss how to specialise their product for the needs of their client, how to plan out the required features and ensure that they fulfil their brief with their finished product.

Grade 9 ICT Unit Overview

Grade 9 Autumn – Summer Term:	Rationale:
<p>Unit 1: Effects of ICT:</p> <p>Now that the students have entered their IGCSE years, there is an increased emphasis on their futures and their physical well-being.</p> <p>This unit will discuss how the increasing impact of ICT on areas that are going to become more and more prevalent to the students as their IGCSE courses begin.</p>	<p>Looking into the effects and impacts ICT has had and will have upon areas such as their school work, their health, their security and their intended area of employment will help the students to realise the impacts, both positive and negative, that ICT has upon their lives.</p> <p>The students will create an on-going journal to measure these impacts and help them to come up with guidelines to minimise the negative and maximise the positive moving forward.</p>
<p>Unit 2: Rollercoaster of a Website:</p> <p>Websites are used to promote everything, from the school, to businesses, to events. Learning how to create a website is a very useful skill for any future endeavours for the students.</p> <p>This unit will cover the development process for designing and programming a professional website, looking at existing examples, planning and programming the website for use by their target audience. They will be developing a website for a theme park of their own design.</p>	<p>Building the programming skills of the students from their previous years, the students will learn the tag-based programming languages of HTML and CSS to develop their websites.</p> <p>This unit will discuss how web developers create their websites to attract a certain target audience. Students will discuss how to specialise their product for the needs of their client and will test their finished product against members of their target audience to gauge success.</p>

Grade 10 ICT Unit Overview

Grade 10 Autumn – Summer Term:	Rationale:
<p>Unit 1: File Management</p> <p>Now in the second half of their IGCSE years, the students will be accumulating a greater amount of data and files on their laptops and drives for their classes and projects.</p> <p>They will also be exposed to more and more file types and will be required to know how to use these files on their hardware and with which programmes.</p> <p>This unit will cover a wide range of file types the students are likely to encounter, instructions on saving their resources in a useful and organised fashion, as well as what file types to use themselves in given situations.</p>	<p>As the end of their first international examination periods approaches, the students will find that one of the most stressful aspects can be self-organisation, particularly when juggling files and resources for a number of different subjects and projects.</p> <p>This unit is designed to minimise this problem before any crunch time or deadlines for their two-year courses begin, with habits and tips that can be brought forward into their IB, university and personal lives.</p>
<p>Unit 2: School Tour</p> <p>Recent global events have made it clear that travelling and experiencing places for yourself can be more difficult than ever before. Therefore, the school requires a digital counterpart for those who may be unable to tour or visit.</p> <p>This unit will cover the planning and creation of a digital version of the school with as much detail and information as possible.</p>	<p>The students will be required to meet exact requirements of clients and projects in the future. By researching and developing the details of the school in a digital format, they will learn to think in a more project and client focused manner.</p> <p>This unit will be planned and created in a Minecraft world, where the students will have to research and plan how best to faithfully recreate the school with the resources available to them.</p>
<p>Exams</p>	