



Computing

Intent

The importance of Computing at Belvue High School is that our students will continue to use their computing skills in their adult life competently and safely in the digital world.

Digital life skills will increase their independence in the use of everyday technologies allowing them to become critical thinkers. When navigating online they will be alert and aware of misinformation such as fake news, harmful websites. They will recognise and know to follow their gut instinct when something is wrong such as peer pressure and the harm it can cause to others and themselves and the importance of reporting any concerns to a trusted adult straightway.

Our young people will be confident communicators, they will think before they share pictures or videos of themselves or friends or any other content when using social media on their devices. They will know the importance of being kind and respectable when online.

Students will gain confidence using a mixture of common software packages and platforms such as Android, iOS, Windows when using a variety of Smart Devices. This will be useful for employment opportunities and independent living. They will be capable tool users knowing how to be secure when protecting themselves online by creating strong passwords, keeping private information personal and know what can be shared to the public online. They will be aware that their devices should have up to date anti-virus software which can keep your personal information private. They will know that they can block people on apps and the importance of using the privacy settings on their devices.

Digital life skills allow our young people to be self-sufficient using everyday technologies such as self-service checkouts, online shopping and banking, ATM machines, accessing public transport and be able to transfer these to skills as new technologies evolve.

Most importantly the young people at Belvue High School will start to create their positive digital footprint which they will continue to practice throughout their adulthood. Being wise on how they present themselves on social media, writing sensible comments to friends or celebrities. They will be aware that a negative footprint can impact on their life now and in the future. They will be role models of Belvue High School with a positive digital footprint for the world to see.





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Overview

Computing is divided into three key areas in line with the National Curriculum:

1. Computing Science (CS)
2. Information Technology (IT)
3. Digital Literacy (DL)

Traditional ICT skills are still taught discreetly within the curriculum which should never be forgotten in the digital world.

Computing lessons are based around the three key areas which are broken down into four units E-Safety (DL), Technology (IT and DL), Multimedia (IT and DL) and Computer Science (CS).

Computing lessons cover how to use technology, creating multimedia content, collating and presenting data, understanding the web and how to be safe, and understanding how computers work and programming. Traditional ICT skills are still taught discreetly within the curriculum which should never be forgotten in the digital world.

Students will use a range of software programs and equipment to create and develop their skills, practising and demonstrating the E-Safety rules.

Students will use their personal school emails and access to the London Grid for Learning (LGfL) website where they access to a wide variety of curriculum subjects. They have access to myHomework where work is set, submitted and marked online.

These skills will prepare them to be confident with the use of Computing in KS4. They will follow the Edexcel Functional Skills qualification in Information and Communication Technology (ICT) or achieve the Belvue Computing Certificate. Post 16 students can follow the Princes Trust accreditation in Digital Skills and Presentation Skills.



KS4	Autumn	Spring	Summer
Cycle 1	<i>Digital Literacy and Technology</i>	<i>Multimedia (Digital Creativity & Data and Information)</i>	<i>Computer Science and E-Safety (DL)</i>
Overview	<p>Students will be studying e-safety and the focus will be on how to keep safe online when using devices that has access to the internet. They will learn and pledge that they will use the internet safely. This will involve sharing with care as not to upset others and to be respectful. To recognise when news is fake or real.</p> <p>Students will have a more in-depth understanding of the importance of keeping their passwords private and they will use a variety of programs to help them create powerful passwords. Students will learn about personal information and the consequences they could face if they share this information to friends or strangers.</p> <p>For Technology students will master the different types of technology used in their everyday lives. They will have enhanced knowledge on how to research inventors and creators of technology and understand the impact it has around the world. The students will use their personal school email via London Grid for Learning (LGfL) a safe platform that we use in school to send and receive email messages. They will also be confident users of G-Suite with continued practices of communicating digitally safely. They will collaborate and communicate offline and online safely.</p>	<p>Multimedia will allow the students to use their creativity where they will use a variety of software such as Office applications and presentation Apps, as well as online tools. They will have greater understanding of how to produce different types of publication such as e-books, presentations, magazines.</p> <p>This will involve researching using the internet and becoming familiar on how to use the search engine to find relevant information to help with their projects.</p> <p>Students will use a variety of tools when creating content.</p> <p>Data and Information allows the students to look at ways in which they can present information using different data platforms. They will understand how important data is and why it is used around the world. Students will collaborate and collect information from each other to create and present data using pictures and images from different software programs. Students will have a solid understanding on what it means to have a good 'digital footprint' when working online and collaborating online.</p>	<p>Students interact daily online and computer science will allow them to be their own creators. They will understand that in their everyday lives coding is used and will explore real world situations where coding is used. They will know that programming is a list of instructions to make something move, create sound, change colour etc. They will be familiar with the coding language such as control, direct and program.</p> <p>Students will have greater understanding on following instructions to make thing happen, using Scratch and other coding software programs. This will allow them understand and relate to the interactive games they play online. This will allow them to write and create in code with increased knowledge they have gained.</p> <p>When students are active online they will learn that being online is not only fun but it can be unsafe. Students will communicate and collaborate with each other and explore the types of dangers that can take place online. They will know the difference of between bullying and cyberbullying. They will discuss stranger dangers, and know who they should report to if they are experiencing cyberbullying.</p> <p>Students will also understand the meaning of friends or foe when online and how to enjoy and behave when gaming with friends.</p>

KS4	Autumn	Spring	Summer
Cycle 2	<i>Digital Literacy and Technology</i>	<i>Multimedia (Digital Creativity & Data and Information)</i>	<i>Computer Science and E-Safety (DL)</i>
Overview	<p>Students will be studying e-safety and the aim is for them to understand that going online is safe but it can also be dangerous. They will communicate and collaborate on the places they visit when online. Open discussions and real experiences shared will help to express and support others any concerns they may have encountered online. They will recognise dangers and report their concerns.</p> <p>'Think before you share' will allow students to recognise good practice when online. Students will discuss their practices online and understand that they must be careful when sharing opinions, content, videos and pictures and understand the positive and negative impact it will have on their 'digital footprint'. Once shared online it cannot be erased.</p> <p>They will have developed an understanding that their passwords should not be shared and will know online identity theft takes place all the time. They will also have a greater understanding of what they can download, scams that take place and how to deal with pop-ups.</p> <p>During the term students will look at how the computer and internet works. The different types of technology used and the inventors of technology.</p> <p>They will also become competent in sending and receiving work via G-Suite. They will continue to practice the rules that apply to communicating digitally. They will collaborate and communicate offline and online safely with a solid understanding.</p>	<p>Students will be using their creativity with sound. They will use this in a variety of software platforms confidently to present music they have composed and know how to incorporate it in other software platforms such as PowerPoint.</p> <p>They will be taking and uploading pictures using different devices. This will allow them to be capable of using different platforms. They will research digital art and then create and present their own digital art.</p> <p>Data information allows the students to understand how to gather information and how it is used in business such as supermarkets, schools; They will have a more in-depth understanding how to collect relevant information based on the task and also how to interpret information. With increased confidence students will learn how to create a spreadsheet using charts and graphs to present their information.</p>	<p>Students will be familiar with the coding language such as algorithm which is a set of instructions on how to get things done such as making something move using the coding to do this. Students will problem solve and write an algorithm flowchart. This will enhance their knowledge of how computer games are designed and many other devices and gadgets we use every day which is based on algorithms. Students will use programming software such as scratch and the BBC Microbit to create sprites, making backgrounds, creating sound and making things move.</p> <p>The practice of being safe online is important and the students will be working together on how to be kind and respectful online. The focus will be cyberbullying and who to report it officially through CEOP (Child Exploitation and Online Protection Command), NSPPC and the Police. Students understand they have a voice and they need to use it if they are being cyberbullied.</p> <p>Students who are their friends or foe on social media. Being able to master if someone or others are being mean and the emotional effect it can have. Student will be mindful about the images they share of themselves and to ask permission if sharing a picture of their friend/s before posting on social media.</p> <p>Students will have an in-depth understanding that when gaming online they should use a special gaming name. They will understand when gaming with friends and family you are safe as you know them in person.</p> <p>They know that gaming friends they have met online are strangers. The importance of not sharing personal information to anyone and to block and report them if they are not being nice or asking personal questions.</p>

KS4	Autumn	Spring	Summer
Cycle 3	<i>Digital Literacy and Technology</i>	<i>Multimedia (Digital Creativity & Data and Information)</i>	<i>Computer Science and E-Safety (DL)</i>
Overview	<p>Students will be communicating and sharing websites they like to visit and apps they have on their devices. They will understand in more depth that websites and apps need to be age appropriate and discussions will take place on why they should follow these set of rules.</p> <p>Continued reinforcement about being a good digital citizen.</p> <p>'Respect for Each Other' will be a focus on how one behaves online and the consequences it can have on them as an individual.</p> <p>Students will know the importance of keeping their personal information private, such as where they live, phone numbers, school they attend.</p> <p>They will master how to create secure passwords and that their information is secured. They will be aware of software viruses, scams and pop ups and if infected the loss of data and personal information stolen.</p> <p>For Technology students will investigate further how computers and network work. They will research who developed their favourite apps or websites that they use and will collaborate with their peers what makes App or website so popular? Students will discuss what life was like before technology? This will allow them to understand how technology has impacted on their lives and the world.</p> <p>The students will use their personal school email. They will also become competent in sending and receiving work via G-Suite. Practicing the rules of communicating digitally. They will collaborate and communicate offline and online safely.</p>	<p>Students will carry out projects which relate to digital literacy and technology using their creative skills to create and present work. Researching and collaborating in paired or small groups they will put together PowerPoints, e-books, posters, leaflets to show what they have learnt with increased confidence. They will learn about copywriting and plagiarism.</p> <p>Using a variety of software packages this will allow them to feel competent when using new platforms or software. They will be able to recognise which software is suitable for a particular task. They will master how to use shortcuts, how to name, save and retrieve work from the relevant drive. Students will continue to practice good housekeeping on how to create and manage folders. They will know the importance of saving a piece under the name that relates to their project.</p> <p>For data and information students will create surveys to find out information and present data from the information they have collected with a more comprehensive and thorough understanding.</p>	<p>Computing science students will learn how to use an interaction tool such as Scratch and other programming software to tell a story. They will understand and use the coding terminology, algorithms, debugging, control, directional and will put it into practice.</p> <p>Students will also create a website using free website builders. This will allow them to enhance their learning on how websites are built.</p> <p>Students will focus on Cyberbullying and communicate experiences they or someone they know may have encountered. They will understand that anyone can be cyberbullied and that sometimes it can be people they know or strangers. They will focus on 'gut feelings', knowing when something is wrong and the importance of reporting it straight away. They will know to report it to a trusted adult, CEOP and NSPCC.</p> <p>Communicating online is fun but student will learn about sexting and grooming. Students will discuss in-depth what they share online and have a look at their digital footprint. They will sign an agreement about good practicing and keeping safe online. Students will discuss and review the choices of games they buy or Apps they have download and why they should be age appropriate. They will understand that when gaming online they should always be safe and aware of dangers especially when playing with strangers.</p>



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