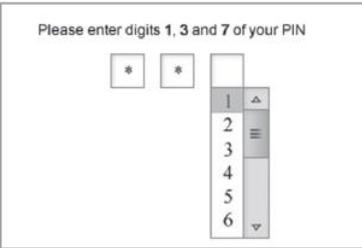


GCSE ICT Essential Knowledge

Multi-functional devices	Allows user to perform many tasks such as: browsing the internet / watching movies / listening to music
Wireless motion sensitive controllers	<p>Advantages Can play anywhere in the room. Easy to set up. Fewer cables to connect/tangle. Allows users to play new types of game. Enhances the user experience/more. Immersive. Easier to play/intuitive interface.</p> <p>Disadvantages Need to be charged / may run out of charge. People with restricted motion/disabilities may find it more difficult. Individuals may have restricted, slow movement / difficulty holding things</p>
Search Engine	To find information on the internet/www based on key words and phrases
Advantages of web searching	Able to locate information anywhere, anytime from a variety of sources. Provides different types of information. Use forums to ask for help from others. Likely to be more up to date than printed information. Digital format making it easier to incorporate into own work.
VLE – Virtual Learning Environment (which we call Moodle)	<p>Advantages Access work anytime and anywhere - work more flexibly. Can upload work he does at home to the VLE - never forget his homework. Share documents with others - facilitates collaborative working.</p> <p>Disadvantages Dependent on availability of the internet. Technical problems with computer or network may prevent use. Requires students to have suitable computer equipment at home. May require training before it can be used</p>
Online cloud backup	Can be fully automated. Don't need local backup (CD / DVD / hard drive). Can access backups from anywhere/anytime. Unlimited storage
Software updates	Fix/patch bugs/problems. Add new features/function. To improve performance/functionality/ User Interface. To improve security.
E tickets	<p>Advantages Cannot be damaged or lost in transit. Process can be automated. Cheaper as no postage costs. Less environmental impact (less paper used). Prevents fraud/touting/counterfeiting tickets</p> <p>Disadvantages Accidental deletion. Need a compatible device to receive display the eticket. Vulnerable to security flaws (hacking/virus/corruption)</p>
	<p>Advantages</p> <p>It prevents a website logging key presses. The asterisks prevent the PIN number being viewed</p>

QR Code	Uses an application which reads/scans/processes the data from the QR code to access the web page. Uses phone camera.
Online ordering/shopping	<p>Advantages to customers Don't have to go out wait in line. May get discounts when ordering online. Can track order. Easier to locate products / search can be filtered. Don't have to leave the house / no travel required. Site may remember previous orders. Faster ordering process e.g. don't have to explain order on phone. Ability to compare prices. 24-7 availability. Can see ratings from previous customers</p> <p>Disadvantages to customers Have to wait for goods to be delivered. Actual product might be different from screen presentation. Need to have credit/debit card. Delivery charge. Delivery problems. Security risk e.g. identity theft.</p> <p>Advantages to business Track buying habits of customer. Offer rewards/discounts to loyal customers. Use data collected to personalise the ordering experience for customers. Target marketing. Store details such as payment method / address to speed up ordering process for customers which will make the customer more likely to come back.</p>
Why Sell Online?	Can receive orders 24/7. Reduces running costs / overhead. Can reach a wider target audience. Can see customer reviews. Offer wider range of stock.
Online auctions	Users can search products. They can see if they are currently the highest bidder. Users receive messages if they are winning / being outbid / have won the auction. Users can rate each other. Sellers/buyers can pay for items using secure electronic transfers. Users can bypass the auction and buy instantly. Users can watch items and receive messages when the auction will end.
Selling downloads	Companies allow customers to download a game/music track direct from their website when they purchase it. Reduces costs for them – don't have to produce DVDs/CDs and ship them to stores. More environmentally friendly. More difficult to copy the product. Allows company to track orders and advertise to customers. Less waste/rubbish is produced.
Cookie	Small text files stored on your computer which track your online browsing. Why delete cookie? Free up storage space on her computer. Stop unsolicited personalised adverts. Stop organisations getting hold of personal information/ browsing habits (if using a shared computer)
Sat Navs	<p>Advantages Less chance of getting lost / easier to find destination / shorter travel time. Highlights points of interest e.g. petrol station. Less chance of being distracted e.g. looking at maps. Reduces number of miles driven. Saves petrol. Can get traffic updates / recalculates routes.</p> <p>Disadvantages Might be a distraction whilst driving. Can become too reliant / Does not always offer best route. Increased chance of car theft if on view. Might not use up-to-date maps</p>
GPS on phone	Gives directions from current location to specified location. Gives estimated time from current location to specified location. Gives location of key services, e.g. nearest train station, ATM. Allows users to tag images/ locations of interest to other phone users. Geotagging.

Geo tagging	Adds GPS coordinates to the images for reference - so that you can see where they were taken Allow you to attach images to an online map
Mobile broadband	Advantages Can access anywhere there is a signal / can work anywhere. No cables. No additional power needed Disadvantages Some places may have no signal. Limit to downloads. Not as fast as fixed line broadband. Dongle could be lost / damaged. Can be very expensive if used abroad (roaming charges).
IMAP4	emails pushed directly to phone/copy of mail is kept on both server and client
POP3	requires users to access email via an internet mail account/mail deleted from server when sent to client
Secret Question	To provide an additional layer of security. Allows access to account if forget password
Advantages of e readers	Advantages Can support / develop understanding by including inline multimedia. Hyperlinks to online material. Search facility. Digital index. Can add digital bookmarks to categorise and organise topics. Information searching made easier by allowing user to categorise sections using keywords. Copying and pasting sections allows quick restructuring of information. More eco friendly than printed books. Disadvantages Not all books available in digital format. Cannot hand-write annotations. Power dependent. Requires connection to internet. Reader screen could be black and white only.
Streaming	The ability to view/listen to content 'live' whilst it is being downloaded to the computer. Don't have to wait for entire movie to download before watching. Does not use (as much) local storage. Wider selection of media/movies.
Latency	Latency is the measurement of delay on an internet connection. It is the time in milliseconds between a bit leaving one device and arriving at the other. Measured in milliseconds.
Bandwidth	Measurement of capacity of an internet connection. It is the number of bits that can go through the network connection in 1 second. Measured in bits per second.
Social networking	Features Find / add friends. Communicate with other users. Instant message service. Comment on others posts. Organise events calendar. Upload share resources such as images videos. Share personal information e.g. location, age,gender etc./ geotagging. Play games / view movies / listen to music. Impact Marketing purposes. Personalised advertising. Can easily organise events with large following. Users can now communicate on a global scale. Used to easily connect people with similar interests. Use of feeds and updates allow user to follow interests e.g. pop star, brands/products. Reduces need for advertising. Used by educational organisations to connect students and enable discussion. People becoming involved in more virtual than real-life worlds – lack of true engagement e.g. 'liking' a campaign does not actual involve any effort. Used by criminals – private information being freely given out by users. Used to organise protest / revolution / social change – can quickly gain large awareness of issues.
Game consoles	Advantages

	<p>Consoles are easier to set up than a PC. Ready-made controllers. Designed specifically for gaming. Can play hands free/new gaming technology games always on console first</p> <p>Other uses Access the internet. Playing CD, DVD, Blu-ray / watching videos /listening to music. Social networking. Stream/download video/music.</p>
<p>Health problems from using computer/console. Eye strain / headaches Muscle strain / stiffness RSI</p>	<p>Take regular breaks. Adjust lighting. Adjust screen Take regular breaks. Check seating position. Move monitor Take regular breaks. Use ergonomic equipment</p>
Social bookmarking	A way for internet users to store bookmarks online which can then be shared with other users
Router	Connects a LAN to a WAN
Wireless home network	<p>Advantages Easier to set up than wired network. Can share files/hardware/software resources as cables not needed. No cables so less health & safety issues. Can access internet from anywhere within range. Visitors can access the network. Network could be accessed by other devices e.g. smartphones/tablets</p>
Cable connection	A network cable is more reliable than wireless. Cable not affected by walls/ has greater range.
Online Application Software	<p>Advantages Saves storage space. Available anywhere there is an internet connected machine. No need to update software. No need to pay for a licence,</p> <p>Disadvantages Dependent on internet being available. Dependent on the service being available. Can be slow. Online applications are not always feature rich</p>
Open source software	<p>The code is in the public domain viewable by everyone so can be developed collaboratively.</p> <p>Advantages Open source is free to obtain and use. Users can modify the source code. Community of support from other users.</p> <p>Disadvantages May not be as feature rich as bought applications. Updates may take longer to come through. May not be as much professional support available. Work may not be compatible with other software</p>
Digital Divide – Lack of access to digital products	<p>More limited skills development and understanding of the use of technology Limited skills can impact on jobs. More difficult to access banking and other online services. Can't buy goods / services on line. Less choice - wider range of options Poorer online communication. No access to email. Exclusion – opportunity to link into social networking / developing friendship / common interest groups. No Access to 'now' society – immediate contact / access to news. Poorer access to information / educational resources now freely available on line. On-line courses. Revision sites. No access to online training More limited opportunity for development of skills – ICT and other functional skills. No access to cultural</p>

	resources such as music downloads / streaming
Effect of digital technology on Health and Well being	<p>Advantages</p> <ul style="list-style-type: none"> Essential in modern world – need to develop skills to be successful in work Develops hand-eye co-ordination playing games Friendships can be built online (social networking) Easier to maintain contact with friends and family – living overseas Access to information about health and wellbeing online Exercises at home using digital devices Health and fitness monitoring – phone apps Use of technology to stay safe / track location / GPS locators / mobile phones <p>Disadvantages</p> <ul style="list-style-type: none"> People spending time on technology rather than with family/friends Physical inactivity More likely to have accidents such as a car crash due to using technology in inappropriate situations Dangers of giving out personal details leads to personal issues such as cyber bullying Stress RSI / Back pains Lack of sleep due to over use of technology Inability to focus / pay attention