



## GCSE Revision Topics 2017 - 2019 ICT

Topic	Tick/date when revised				
<b>Personal Digital Devices - You need to know about the following devices (what they are and their functions)</b>					
Mobile Phones (and Smart Phones)					
Personal Computers (Desktop, Laptop, Netbook, Ultrabook etc.)					
Cameras and Camcorders					
Games Consoles					
Home Entertainment Systems					
Media Players (Including portable media players EG iPod).					
Navigation Aids (GPS Systems)					
<b>You need to be able to discuss the following about the above devices</b>					
Purpose and target audience of different devices					
How the devices are used in daily lives (learning, leisure, earning, shopping , money management, health, on the move)					
Features of each device (portability, performance, storage, user interface, connectivity, media support, energy use, expansion options, security features, applications)					
How to select devices appropriate to meet particular needs of a user					
The impact of age, gender and disability					
Methods of connecting devices (device to device, device to peripherals, device to internet)					
The impact of digital devices on organisations					
Health and Safety risks of devices					
<b>Connectivity</b>					
<b>You need to know about the following types of connection and data</b>					
<b>1. Digital Communications</b>					
Device to Device: Cable (Ethernet, USB), Wireless (Bluetooth, 3G, WiFi, GSM etc)					
Broadcast (TV, Radio, GPS)					



Wifi Direct					
Near Field Communication (NFC “(((“ )					
<b>2. Digital Data</b>					
Information					
Communication (Voice, Email, Video)					
Applications (Gaming, Periperal Connections)					
<b>You should be able to discuss the following subjects</b>					
Factors that affect the choice of communication method					
Equipment needed to create a home network					
Benefits and drawbacks of wired and wireless connections					
How different technologies can be used together (Take a picture on a camera, transfer to laptop via USB cable, upload image to web using WiFi and ADSL)					
Factors that affect speed and volume of data transfer					
The significance of bandwidth and latency and their impact on “user experience”					
Commonly used communication networks (Ethernet, wireless Ethernet, GSM)					
Commonly used communication protocols (VoIP, POP, IMAP, SMTP, HTTP/S)					
The security risks to data and how to avoid them (firewalls, encryption, authentication, digital certificates, physical access controls)					
<b>Operating Online - Be able to discuss staying safe on the internet</b>					
Identification and authentication					
Online Accounts					
Personal Spaces					
Profiling (Public and Private)					
Data Protection					
<b>You need to know about and be able to discuss</b>					

The widespread use of the internet, how anyone can access it and how it has opened many opportunities, both good and bad					
The use of usernames, passwords and security methods when accessing online systems					
Control of access to personal spaces, responsible use of these spaces					
Threats to and methods of preventing misuse of personal information					
The impact of relevant legislation					
<b>Online Goods and Services - You should know about these online services</b>					
Online shops for purchasing physical goods (amazon.co.uk)					
Booking systems for travel, leisure and entertainment (EG booking a cinema ticket online)					
Banking					
Education (EDMODO!)					
Gaming					
News (bbc.co.uk/news)					
Auctions (EBAY)					
"On Demand" streaming services (Lovefilm/Netflix)					
<b>You should be able to discuss</b>					
Advantages and drawbacks of shopping online rather than in a real shop					
The impact on lifestyles thanks to the availability of online services					
How and why organisations operate online					
The commercial value of data (What information is collected, how: cookies, what is that used for?)					
Targeted marketing and personalisation					
Payment systems					
Consumer protection (Law: Consumer Rights)					

<b>You should know about online software and applications</b>					
Software as a service (EG Google Documents / Microsoft Office Online)					
Software download (OpenOffice)					
Data storage					
Search Engines					
<b>You should be able to discuss</b>					
The advantages and disadvantages of online applications versus locally installed software					
The advantages and disadvantages of online data storage					
The advantages and disadvantages of open source vs copyrighted software					
Effective use of search engines, improving results and validity / trustworthiness of results					
<b>Online Communities - You should know about</b>					
Social Networking (Facebook / Twitter / Myspace etc)					
Online Work Environments (Edmodo – for business)					
Virtual Learning Environments (Edmodo)					
User generated reference sites (Wikispaces / Wikipedia)					
<b>You need to be able to discuss</b>					
The features and target audience of the above					
The way ICT is changing how knowledge is shared					
The impact of ICT on working practice and collaborative working					
The impact of ICT on socialising					
Responsible use and behaviour					
Ways ICT is used to communicate and collaborate on a global scale					
<b>Issues - You should know about the issues that ICT has created</b>					
Security					
Privacy					

Health and Safety					
Legal and Ethical					
Environmental					
<b>You should be able to discuss these issues</b>					
Security of transmitted information					
Privacy issues associated with the use of ICT					
Ways ICT can be used to monitor movements and communications					
Health and safety issues that arise from using ICT					
The impact on society of the widespread use of networks and the ability to access networks (nearly) anywhere					
Laws related to ICT					
The unequal access to ICT throughout the world					
Safe and responsible practice when using ICT					
Ways ICT can be used to minimise the damage ICT can do to the environment					