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| **Online Services** | **Online advertising** | **Online Documents** | |
| **Real-time information**  Information which is updated all the time (24/7)  **Commerce**  Buying and selling online  **Government**  Online applications, tax, voting, etc.  **Virtual learning environment (VLE)**  Online access to school work, marking, grades, communication. Allows students to collaborate.  **Download services**  Getting something from a website and saving it on to your device  **Business**  Online banking, office workers, etc.  **Entertainment**  Gaming, music, video, film, on demand TV  **Communication**  Social media, email, video calling, etc. | **Pay-per-click**  Every time a customer clicks on the advert the advertiser is charged  **Search engine advertising**  The advertiser pays for the advert to appear at the top of the results page.  **Email marketing**  Emails sent to a target audience  **Pop-up**  Advert appears in the middle of the screen over the top of a website  **Web banner**  Advert appears on the top or down  the side of a website  **In-line advert**  Advert is linked to a word or piece of text and appears when the user clicks on it.  **Host website**  A website which allows another advertiser to appear on it, e.g. as a banner  **Affiliate website**  Another name for a host website | **File compression**  Using an algorithm to make files smaller  **Index**  The information (code) need to expand a file  **Algorithm**  A set of instructions  **Winzip**  The software used expand a compressed file  **Expansion**  Returning the compressed file back to its original size  **Locally installed**  Saved on the computer  **Standalone software**  Software installed (saved) on the computer  **Online software**  Software stored on a webserver and accessed over the Internet  **Software as a Service**  Another name for online software  **Online storage**  Files stored on an external server and accessed over the Internet  **Cloud computing**  Storing documents online | **Host**  The name given to the online server where files are stored  **Collaboration**  Sharing documents and working together online  **Ubiquitous computing**  The idea that computers are everywhere  **The Internet of Things**  The idea that the Internet is a network of things that contain a processor, e.g. computer, fridge and people  **RFID chip**  A chip can be used to identify and track someone or something  **File permissions**  Restricts access to documents for some users – full control, read/write, read only  **Levels of access**  Some users can access documents using a password  **Version control**  Every time the document is saved it is given a number or code to show which is the most recent version  **Back up**  Saving a second copy of a document in case the original is deleted or corrupted |
| **Online Communication** | **The WWW** | **The Internet** | |
| **VoIP**  Free voice or video calls over the internet  **Social networking**  An online community  **Network of Friends**  Another name for social networking  **Netiquette**  How to behave appropriately online  **Profile**  Personal information on a social  networking site  **Virtual community**  A community which only exists online  **Real time communication**  Messages are sent in real time, e.g. VoIP, instant messaging  **Podcast**  audio or video files which can be downloaded from the internet  **Wiki**  online information which can be edited by anyone  **Newsgroup**  a chat room or forum where people talk about a particular topic | **World Wide Web**  Billions of webpages linked together  **Hyperlink**  A link to another webpage  **Web server**  Online server where webpages are stored  **Web browser**  A program which allows the user to view a website, e.g. Internet Explorer or Safari  **URL (Uniform Resource Locator)**  A webpage address made up of 3 parts:  1. Protocol  2. Domain name  3. Path  **http (Hypertext Transfer Protocol)**  Protocol for requesting and viewing webpages  **HTML (Hypertext Transfer Language)**  Computer language used to create webpages  **Search engine**  User can search for information on websites using key words  **Index**  The name of the search engines database  **Crawler, spider or bot**  Look for new data on websites and store the data in the search engines database | **Internet**  The world’s largest network connecting every device in the world.  **Network**  2 or more computers connected together  **Connecting backbone**  The main cable connecting large networks on the internet to smaller LANs  **Wireless**  Connecting to the internet without using cables (Wi-Fi)  **Broadband**  A wired connection to an ISP, through an Ethernet cable  **Dial-up**  A wired connection via a conventional telephone line, which needs a modem to convert the analogue signal to digital  **Bandwidth**  How much data a network can transmit in a second (Speed of data transfer)  **Points of Presence (POP)**  The point where the client connects to the ISP | **Network access point (NAP)**  Where 2 ISPs connect to each other, e.g. BT and Virgin  **Protocol**  A rule for doing something  **Transmission control protocol (TCP)**  Takes the files from the client and breaks them down into packets. Passes the packets to the IP. **Internet protocol (IP)**  The protocol used to transmit packets on the Internet  **File transmission protocol (FTP)**  Used to download programs from a server to a computer or upload webpages to the host webserver  **Internet service provider (ISP)**  The company who provide access to the internet, e.g. BT, Sky  **Server**  A computer or program that gives clients access to files / network  **Client**  Computer which access the data on the server  **Router**  The router sends the data to the correct destination. |
| **Email** | **Databases** | **Data Transfer** | |
| **Email client**  email program that runs on your device (e.g.POP3)  **Webmail**  Web based email accounts (e.g. IMAP)  **Application**  Computer program / software  **SMTP**  Protocol used to send emails  **POP3**  The server downloads the email to the computer and it can be read offline  **IMAP**  The email is saved on the server and can only be read with an internet connection  **Store and Forward**  The email s stored on the email server and is only downloaded to the client when the user opens it  **cc**  Copying the message to another person  **bcc**  Sending a copy of the message to another person without the receiver knowing | **Database**  A collection of data  **Record**  A row of information about a single item  **Field**  A column of information about one category  **Table**  Data is stored in a table  **Relational Database**  Made up of multiple tables  **Primary Key**  A unique reference number used to identify one record  **Foreign Key**  A field in one table that is linked to the primary key in another table  **Relationship**  The primary and foreign keys create a relationship between tables  **Database Management System (DMS)**  Software that allows you to create and manage your own database  **Structured Query Language (SQL)**  Language used to create databases  **Data Definition Language (DDL)**  Defines the structure of the database  **Data Manipulation Language (DML)**  Adds, deletes and changes data. Can also run queries | **Data**  Text, image, sound, video  **Device**  Computers, peripheral devices, mobile phones, etc.  **Peripheral**  Anything that can be plugged in to a computer, e.g. monitor, mouse, keyboard, printer, headphones, etc  **Data exchange**  How data is sent from one device to another  **Packet switching**  Breaking data in to packets and sending them over the internet  Packets are made up of a header, payload and trailer.  **CODEC**  Program used for VoIP.  Converts the analogue signal to digital, breaks it into packets and sends the packets to the destination. Will also put the packets back together.  **Analogue / digital**  Different types of signal – Phone uses analogue. Computer uses digital  **Transmission mode**  The way devices transfer data with each other | **Simplex**  Signals can only travel in one direction at a time  **Full-duplex**  Signals go in both directions at the same time  **Half-duplex**  Signals go in both directions but only one device can send a signal  **Serial**  Data moves on one wire – 8 bits on 1 wire – but can only send one bit at a time  **Parallel**  Each bit has it’s own wire – 1 bit on 1 wire – a byte (8 bits) can be sent at once  **USB**  A type of serial transmission  **Client-side processing**  Data from a webpage is processed on the client  **Server-side processing**  Data from a webpage is processed on the server |

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| **HTML Tag** | **Meaning** |
| <a href> | hyperlink |
| <b> | bold |
| <body> | Body of the text |
| <font> | Font type and size |
| <html> | Start of the program |
| </html> | End of the program |
| <img=> | Image |
| <i> | Italic |
| <li> | List |
| <p> | Paragraph |
| <ul> | Bullet |
| <tr> | Adds a row in a table |
| <td> | Adds a cell in a table |

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| **Threats and Precautions** | |
| **Opportunity** Stealing the device, using your device when you are not there **Virus** A program which stops your computer from working properly. Will spread to every computer on the network. Can get them from email attachments and file sharing websites **Malware** Trojans, worms, adware, spyware, virus **Phishing** An email which is trying to get your personal / banking information **Damage** Flood, fire or dropping your device! **Hackers** People who try to ‘break in’ to your machine | **Keypad, CCTV, burglar alarms, turning off your computer**  **Strong passwords**  **Levels of access** (page 6)  **Anti-virus software**  **Install a firewall**  Uses the IP address to stop unauthorised users from accessing a network.  **Encryption**  **Backup and recovery**  **Privacy settings on social media Think before you post!**  **Only use secure websites** |
| **Data Protection Act** A company has to keep all the data it holds about its customers safe. Customers have a right to ask for the data to not be used |
| **Computer Misuse Act** Hackers or those who upload viruses, spyware etc. will be prosecuted |
| **Copyright, Designs and Patents Act** Have to ask for permission before using an asset from the internet, or acknowledge the source |
| **Freedom of Information Act** You have a right to see what date companies hold about you. |