

Year 9 Computing Topics



Unit 9.1- E-safety

- 1) What is sexting? Use of images on social media. Sending and sharing explicit images of minors. Legalities.
- 2) Pornography. How it changes views on relationships, sexual relationships. Legalities.

Unit 9.2- Data Representation

- 1) CPU- Fetch, Decode, Execute.
- 2) Clock Speed- number of cycles a processor carries out per second.
- 3) Control unit- Fetches, Decodes and Executes instructions, issues control signals that control hardware.
- 4) Arithmetic Logic Unit (ALU)- Performs arithmetic i.e. calculations, deals with logic making decisions.
- 5) Logic Gates- can only be 1,0. (Revise AND, OR, NOT gates)
- 6) Binary- Base 2, why used, binary to denary and denary to binary conversion, binary addition
- 7) Denary- Base 10
- 8) Hexadecimal- Base 16, why used, decimal to hex, hex to decimal conversion
- 9) Graphics- vector, bitmap, colour depth, pixel,
- 10) Metadata- Data stored about an image.



Year 8 Computing Topics (15 marks):

- 1) Hacking- definition of a hacker. Describe hacking and the different types of hackers; Grey, Black, White.
- 2) The Computer Misuse Act- why was it invented?
- 3) Types of attacks, What is a DDos, Brute Force attack?
- 4) Define what the internet is.
- 5) Define what the www is.
- 6) Network hardware, server, switch
- 7) Network cables e.g. twisted pair, ethernet, fibre optic

Year 7 Computing Topics (10 marks):

- 1) What is the purpose of RAM, ROM, Motherboard in a computer system.
- 2) Types of secondary storage; optical (DVD), solid (USB), magnetic (hard drive)
- 3) Units of measurement; smallest to largest (bit, nibble, byte, kilobyte, megabyte, gigabyte, terabyte, petabyte)
- 4) Malware; worms and virus,