National 5   Prelim Revision

Computer Architecture	The Processor – Registers, ALU, Control Unit Memory – Main Memory, RAM, ROM, Memory Sizes Buses – Address, Data, Control Interfaces – Data Conversion, Speed Operation, Temp Storage, Different Voltage Levels
Database Theory	Manual Vs Computerised – Advantages and Disadvantages to both Structure – File, Record, Field Data Types – Text, Integer, Real Number, Object, Date, Time, Currency, Boolean Flat File Database Vs Relational Database What is Data? What is Information? Operations – Searching, Sorting, Forms Key Fields – Primary Key, Foreign Key, Surrogate Key Table Relationships – one-to-one, one-to-many, many-to-many Validation Verification
Environmental Issues	Energy Use Disposal Carbon Footprint
Hardware	Input, Output, Backing Storage
HTML	Tags, Hyperlinks HTML = Hyper Text Markup Language
Legal Implications	Data Protection Act Computer Misuse Act Copyright, Designs and Patents Act Communications Act Health and Safety Regulations
Media Types	Text File Formats – txt, rtf (Rich Text Format) Audio File Formats – wav, mp3 Image File Formats – jpeg, bmp, gif, png Video File Formats – mp4, avi
Network Theory	LAN (Local Area Network) – what is it? Wired Connections, Wireless Connections WAN (Wide Area Network) – what is it? Wired Connections, Wireless Connections The Internet NIC – Network Interface Card Peer-to-Peer Network – what is it? Advantages, Disadvantages Client-Server Network – what is it? Advantages, Disadvantages Web / Cloud Storage
Scratch Programming	Event Driven Programming Loops – Forever, Fixed, Nested Broadcast If Statements Variables & Data Types Assignments Arithmetic Operations

Security Risks & Precautions	Hacking Malware – viruses, worm, Trojan horse Why create a virus? Other malicious – Spyware, Phishing, Keylogger Online Fraud Identity Theft DOS Attacks Security Precautions – anti-virus, biometrics, password, encryption Security Protocols – S-HTTP Firewalls
Web Design Theory	Browser URL – Uniform Resource Locator User Interface Target Audience Multimedia – text, audio, graphics, video