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"For all your computing needs – Home and Office" – Sales / Upgrades / Repairs / Data Recovery / Accessories / Consumables

## Recommended notebooks/laptops: (minimum specifications listed)

Make: Lenovo, Acer/Packard Bell (same company) or ASUS (specifically, ONLY those with an AMD Ryzen CPU)

CPU: Intel i5 2.5+GHz (ideally, not via turbo) or AMD Ryzen 2.0+GHz, with 1MB level 2 + 4MB level 3 cache (check on cpu-world.com)

GFX: AMD (good) or Intel (basic), but NOT nVidia, due to overheating issues, unless very good ventilation on base (ideally, use a fan pad)

RAM: 8+GB, but more if multi-tasking or gaming. Also, 2x same size (e.g. 2x 4GB) is about 10% faster

SSD: 120GB is enough for most people (unless downloading movies!). If comes with HDD, factor in cost of SSD as faster & not damaged by movement

TFT: smaller is more robust: 14.0" 1600x900 gives good/sharp image. High resolution (1920x1080+), if 'zoomed', is often blurry

Windows 10/11 need higher spec hardware than 7 or 8.1, but changing HDD to SSD can mean performance is bearable even with lower spec CPU & battery will last longer In our experience, the least reliable makes are: HP/Compaq (~25%), Toshiba, MSI & Apple, who are also the most expensive to repair (obviously!) & the least safe/compatible! But, ALL makes have good & bad models, so read multiple reviews - does it do the job & does it do it well?

"Notebooks" have either HDD (sudden movement, while powered, will damage disc, corrupting files) or air vents on base (if blocked will overheat & 'kill' computer), but can have faster CPU & MUST be used on flat & steady surface. Most (99+%) portable computers are notebooks, but HDD should always be replaced with SSD for better performance.

"Laptops" have SSD & no air vents, so must also have super slow CPU to prevent overheating & are only suitable for very basic tasks

Most computers come with a trial version of Norton (now uses Bullguard & Avira technology, so massively better protection than before) or McAfee (slow & low detection) anti-virus pre-installed - McAfee should be removed (specialist software required) before installing better & going online (see page #1 of our 'Hints & Tips') Check Amazon or Argos for models that originally cost £400+ but are now on sale as manufacturer has new models & are clearing stock... It's new, with same warranty, but can be bought for less. Read reviews, good & bad. Brexit & Covid caused stock shortages & the on-going recession (since 2008!) created huge price rises & a trend for manufacturers to release low specification & low quality at lower prices, but you won't be happy with such a computer!

## Recommended computers/PCs: (minimum specifications listed)

Make: Custom designed/built is the ONLY way to ensure good specification & quality, without incompatible or limited upgrades

CPU: Intel i5/i7 or AMD Ryzen, at least 3.0GHz, 4 cores & with 2MB level 2 + 8MB level 3 cache (check on cpu-world.com)

GFX: **nVidia** or **AMD** (AMD Ryzen APU's have built-in graphics which are good enough for most games, but a dedicated card is better), but NOT **Intel** (unless only need basic usage)

PSU: graphics card(s) can need more power than the whole of the rest of the computer, so +12v rail needs to be 30+amps (ideally 40+amps).

If Intel or AMD APU, so no dedicated graphics card, 20amps is enough. PSU watts do NOT indicate power, amps do

RAM: **8GB** is fine for most people, but 16GB is better for gaming or photo/video/audio processing. 2x same size (e.g. 2x 8GB) is about 10% faster & always go for fastest memory the motherboard & CPU will support without over-clocking

SSD: **240GB** is enough for most people (unless downloading movies!). Only use HDD for data files (e.g. documents, pictures, etc)

Modern hardware (motherboard & CPU) ONLY supports Windows 10/11 (or Linux), which need higher spec hardware than 7 or 8.1, so SSD is critical for boot drive. Most modern motherboards support both M.2 & SATA SSD... although SATA SSD can be 10x quicker than HDD, M.2 can be 100x quicker, so are obviously preferred.

If online banking or shopping, paid internet security (i.e. Norton, Kaspersky or Bitdefender) will have additional features & protection over free security (e.g. Kaspersky Free, Avira or Comodo), but, irrespective of which anti-virus you run, a safe web browser, correctly setup, is CRITICAL, so NOT: Internet Explorer (discontinued), Microsoft Edge, Mozilla Firefox, Google Chrome or Apple Safari as all unsafe, so should be avoided. Use either Opera or Maxthon (see our Hints & Tips for setup details).

Windows 10/11 need extensive configuration (over 50 settings changed!) & a better start menu, however, they're safer, with better built-in hardware support, updates are more frequent & install quicker, but they are less compatible with older devices & software. Windows 10 entered 'maintenance mode' in October 2022, so will have no new features, only bug & security fixes, until it's completely discontinued in October 2025 - therefore Windows 11 is the recommended choice.

ALL HDD & SSD fail, no exceptions... if you have important files, keep them backed up (external HDD or USB flash)!!!