Computer fundamentals

International Baccalaureate · IB Diploma · Computer Science · HL · Vocabulary in context

Word	Example
central processing unit /ˈsentrəl ˈprəʊsesɪŋ ˈjuːnɪt/	The **central processing unit** carries out program instructions.
control unit /kənˈtrəʊl ˈjuːnɪt/	The **control unit** tells the other parts what to do.
arithmetic logic unit /əˈrɪθmətɪk ˈlɒdʒɪk ˈjuːnɪt/	The **arithmetic logic unit** does maths and logic.
register /ˈredʒɪstə/	The processor keeps the number it is using in a **register**.
bus /bʌs/	In a **bus** network, all computers share one cable.
clock speed /klɒk spiːd/	A **clock speed** of 3 GHz means 3 billion cycles each second. 3 GHz 30
core /kɔː/	A four-**core** processor can run four tasks at once.
graphics processing unit	A **graphics processing unit** draws images quickly.
RAM /ræm/	Open programs are stored in **RAM**.
ROM /rɒm/	The start-up program is kept in **ROM**.
cache /kæʃ/	The **cache** keeps data the processor needs often.
secondary storage /ˈsekəndəri ˈstɔːrɪdʒ/	A hard disk is **secondary storage**.
compression /kəmˈpreʃn/	**Compression** makes the file smaller.

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lossless /ˈlɒsləs/	**Lossless** compression keeps every bit of the original file.
lossy /ˈlɒsi/	**Lossy** compression removes some detail to save space.
cloud computing /klaʊd kəmˈpjuːtɪŋ/	With **cloud computing**, you store files on servers far away.
binary /ˈbaɪnəri/	In **binary**, the number 5 is written 101. 5 101
bit /bɪt/	A **bit** is a single 0 or 1. 0 1
byte /baɪt/	One **byte** can store one letter, such as A. A
hexadecimal /ˌheksəˈdesɪml/	In **hexadecimal**, the number 255 is written FF. 255 FF
two's complement /tuːz ˈkɒmplɪmənt/	In **two's complement**, 11111111 means −1. 11111111 −1
Unicode /ˈjuːnɪkəʊd/	**Unicode** gives a number to every character, including Chinese.
pixel /ˈpɪksl/	Each **pixel** is one small dot of colour.
colour depth /ˈkʌlə depθ/	**Colour depth** is the number of bits for each pixel.
sample rate /ˈsæmpl reɪt/	The **sample rate** is how many sound samples are taken each second.
logic gate /ˈlɒdʒɪk geɪt/	An AND gate is a **logic gate**. AND
truth table /truːθ ˈteɪbl/	A **truth table** shows the output for every input.

Word	Example
operating system /ˈɒpəreɪtɪŋ ˈsɪstəm/	Windows is an **operating system**. Windows
process management /ˈprəʊses ˈmænɪdʒmənt/	**Process management** decides which program runs next.
memory management /ˈmeməri ˈmænɪdʒmənt/	**Memory management** gives each program its own part of RAM. RAM
driver /ˈdraɪvə/	A **driver** lets the operating system talk to a printer.
scheduler /ˈʃedjʊlə/	The **scheduler** decides which program runs next.
time slice /taɪm slaɪs/	Each process runs for one **time slice**, then waits.
polling	**Polling** checks a peripheral's status repeatedly until an event occurs.
interrupt /ˈɪntərʌpt/	Pressing a key sends an **interrupt** to the processor.
machine code /məˈʃiːn kəʊd/	The processor runs **machine code**: only 0s and 1s. 0 1
compiler /kəmˈpaɪlə/	The **compiler** turns the whole program into machine code.
interpreter /ɪnˈtɜːprɪtə/	An **interpreter** runs the program one line at a time.
bytecode /ˈbaɪtkəʊd/	Java code is first turned into **bytecode**. Java

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