Computational thinking

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

Word	Example
decomposition /ˌdi:kʊmpə'zɪʃn/	**Decomposition** breaks a big problem into small parts.
pattern recognition /'pætn ˌrekəg'nɪʃn/	**Pattern recognition** finds things that repeat in data.
abstraction /əb'strækʃn/	A map uses **abstraction**: it leaves out small details.
algorithmic design	**Algorithmic design** means planning the steps before coding.
model /'mɒdl/	A **model** is a simpler version of a real system.
algorithm /'ælgərɪðəm/	An **algorithm** is a list of steps to solve a problem.
input /'ɪnpʊt/	input() reads **input** that the user types. input()
output /'aʊtpʊt/	The **output** of print(2 + 3) is 5. print(2 + 3) 5
sequence /'si:kwəns/	In a **sequence**, the steps run one after another.
selection /sɪ'lekʃn/	An IF statement is a kind of **selection**. IF
iteration /ˌɪtə'reɪʃn/	A loop is a kind of **iteration**.
flowchart /'fləʊtʃɑ:t/	A **flowchart** shows the steps as boxes and arrows.
trace table /treɪs 'teɪbl/	A **trace table** shows the value of each variable at each step.

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pseudocode /'su:dəʊkəʊd/	Write the algorithm in **pseudocode** first.
specification /ˌspesɪfɪ'keɪʃn/	The **specification** lists what the program must do.
normal data /'nɔ:ml 'deɪtə/	For ages 0 to 120, 15 is **normal data**. 0 120 15
boundary data /'baʊndəri 'deɪtə/	For ages 0 to 120, the **boundary data** are 0 and 120. 0 120 0 120
invalid data	Typing letters where a number is needed is **invalid data**.