

Computational Thinking

Four ways to think like a computer

- 1 — DECOMPOSITION. Break a big, hard problem into smaller, easier ones. Example: 'plan a school trip' = book bus + collect money + decide route + permission slips + bag list. Each is a smaller problem you can solve.
- 2 — PATTERN RECOGNITION. Spot patterns and similarities. If you've solved one problem, can you use a similar approach for another? Example: 'multiplication is just repeated addition'.
- 3 — ABSTRACTION. Ignore the unimportant details and focus on what matters. A subway map abstracts away every street and just shows lines and stations — exactly what you need to plan a journey.
- 4 — ALGORITHMS. Write down a clear, step-by-step set of instructions to solve the problem. A recipe is an algorithm. So is the way you tie your shoes. So is every computer program.
- These four skills aren't just for computing — they're how to solve any complex problem in life.

