

# Computational thinking

# Year 4 Spring 2 Computing

# Key facts

# Key knowledge

# Links

Abstraction	Identifying the important detail and ignoring irrelevant information.
Algorithm design	Creating a formula or set of instructions to solve the problem.
Code (computer)	A set of instructions written in programming language, to tell a computer what to do.
Code blocks	A visual representation for a section of code that performs a certain job. They can be snapped together to build a program.
Computational thinking	A method of tackling a complex problem, to devise a solution which both computers and humans can understand.
Computer	Electronic machines that accept and process information to produce an output, and then store the results.
Decompose	To break something down into smaller chunks.
Pattern recognition	Identifying similarities and recurrences in data.
Problem	A matter or situation that needs to be resolved.
Sequence	A set order or pattern for something to follow.



Data without any identification, order or sequence



Sequence of dance moves:

Start

- Criss-cross
- Jump
- Criss-cross
- Double step to the left
- Double step to the right

End

Decomposition:

- Criss-cross x2
- Jump x2
- Criss-cross x2
- Double step to the left x1
- Double step to the right x1
- Jump x2

Pattern recognition:

- Criss-cross
- Jump
- Criss-cross
- Step forwards
- Step backwards
- Step forwards
- Step backwards

Links to other computing topics:

Y5 – micro:bit, Y6 – intro to Python