

LKS2 Computing Knowledge Organiser

Year 4 - Term 3 - Programming - Repetition in shapes

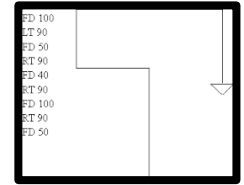
Key Focus: create programs by planning, modifying, and testing commands to create shapes and patterns.

National Curriculum Objectives:

- Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

Repetition in shapes

- To identify that accuracy in programming is important
- To create a program in a text-based language
- To explain what 'repeat' means
- To modify a count-controlled loop to produce a given outcome
- To decompose a task into small steps
- To create a program that uses count-controlled loops to produce a given outcome



Key vocabulary

Word	Meaning
Command	An instruction given by a user to tell the computer what to do.
Repetition	When a command or process is repeated.
Loop	A set of instructions that the computer will perform repeatedly unless a condition is met which stops them.

Sticky Knowledge:

Commands for computers need to be clear and accurate.

Repetition of a command can make commands easier to write.

Loops can mean actions are repeated until an outcome is achieved.