

Programming	Selection and Iteration	Database Systems	Different Number bases
Can understand the concept of a variable and with a model to refer to can create variables to store numbers and perform simple calculations.	Can adapt an existing simple if statement to perform a different task. Can adapt an existing program for one type of loop (while or for) to perform an existing task.	Understands the concept of a database, and its function in the storage and retrieval of data.	Understands that there are different bases, and that these mean the sequence of numbers are different to the "normal" base of 10. Can use the programming calculator to do this.
Can create variables with common data types (input function) with a model to refer to, and apply depending on task. Usually uses sensible names for variables albeit not using a convention.	Can adapt an existing nested if statement to perform a different task. Can adapt an existing program for both types of loop (while or for) to perform an existing task.	Understands the concept of a database for storing data, as well as the methods for retrieving data e.g. filters, queries etc.	As above, but can convert between binary and denary, and denary and binary, when given a framework.
Can create variables with common data types (input function) with a model to refer to, and apply depending on task. Can use global variables when needed to get a program to function. Usually sticks to a sensible naming convention.	Can independently create a nested if statement to perform a task. Can independently write both while and for loop, and understand the difference between them.	Understands the concept of a database for storing data, as well as the methods for retrieving data e.g. filters, queries etc. Understands that a database is better than a spreadsheet for storing and retrieving data. Can write some basic SQL when given a framework.	Can convert between denary and binary, binary and denary, denary and hexadecimal, hexadecimal and denary, when given frameworks and models to use.
Can independently create variables with common data types (input function), and apply depending on task. Can understand concept of and apply local and global variables and apply. Consistently uses a sensible naming convention.	As well as the above, can understand the concept of putting if statements inside loops well enough to be able to adapt an existing program to fulfil a different task.	As above plus Understands the difference between filters and queries, and can discuss the relative advantages and disadvantages of each. Can discuss advantages of a database for storage and retrieval over a spreadsheet/table etc. When given a framework can write any of the queries using SQL.	Can independently convert between denary and binary, binary and denary, denary and hexadecimal, hexadecimal and denary. Can also add up two binary numbers using column addition.
Can independently create variables with a variety of appropriate data types (input function), depending on task. Can understand concept of and apply local and global variables. Consistently uses a sensible naming convention.	As well as the above, be able to independently combine loops and if statements to perform a variety of different tasks, using different operators e.g. modulus operator.	As above plus Can discuss the role of a database in organisations. Can write any of the queries using SQL independently.	As above, but also understand the concept of stack overflow, and how this can affect computer systems. Also understands the concept of binary shift left and right.