

Programming: Structures

A	Key Vocab
Iteration	Repeated execution of a group of instructions
Condition controlled loop	An iteration statement which repeats until a certain requirement is met
Count controlled loop	An iteration statement which repeats for a specified number of times
Search	Find a specific item in a list of data using an algorithm
Selection	A choice of which branch to take in a program, often with IF statements
Sort	Arranging a list into an order
Statement	An instruction or clause in a program
Recursive	An algorithm which calls itself

B	Iteration structures
DO UNTIL	Iteration structure which has a stop condition at the end of the loop
DO WHILE	Iteration structure which has a continuation condition at the end of the loop
FOR NEXT	Iteration structure which has an index variable, a step value and a stop condition
WHILE	Iteration structure which has a start condition at the beginning of the loop

C	Selection structures
IF (ELIF) ELSE	A selection statement which branches the program under certain conditions
SWITCH CASE	A type of selection statement where there are a number of possible branches

D	Search
Linear search	A search algorithm which starts by looking at the first item in an unordered list, then moves to the second etc.
Binary search	A search algorithm which starts by looking at the middle term in an ordered list, then if the item is not found, recursively searching on the half of the list with the item in it

E	Sort
Bubble sort	A sorting algorithm which swaps adjacent items in a list if they are not in the right order, before moving onto the next pair.
Insertion sort	A sorting algorithm which goes through a list by item, removes the item and puts it into the appropriate place in a new ordered list
Merge sort	A sorting algorithm which splits a list in two, sorts each list recursively, then merges them back together

