



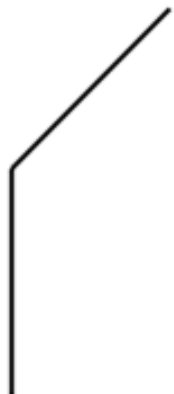
## Unit 2 - Programming Using Small Basic



<http://smallbasic.com/>

Sequence – a set of instructions, followed in order:

```
My First Programme.sb * - N:\Documents\code\
1 Turtle.Move(100)
2 Turtle.Turn(45)
3 Turtle.Move(100)
4 Turtle.PenUp()
5 Turtle.Turn(45)
6 Turtle.Move(100)
```



Output – text or data which is displayed on the screen

```
My First Programme.sb - N:\Documents\code\My First Programme.sb
1 TextWindow.WriteLine("Socks and Sandals")
```

```
Select N:\Documents\code\My First Programme.exe
Socks and Sandals
Press any key to continue...
```

Iteration – part of a program which is repeated over and over

```
My First Programme.sb * - N:\Documents\code\
1 For i = 1 To 5
2   TextWindow.WriteLine(i)
3 EndFor
```

```
N:\Documents\code\My First Program
1
2
3
4
5
Press any key to continue...
```

Input – information coming IN to a computer system or program

```
1 TextWindow.WriteLine("What is your user name?")
2 user_name = TextWindow.Read()
3
4 TextWindow.WriteLine("Hello, " + user_name + ". What is your password?")
```

```
What is your user name?
bob123
Hello, bob123. What is your password?
_
```



## Key Vocabulary and Definitions

Term	Meaning	Term	Meaning
<b>Computer</b>	An electronic device which carries out program instructions. Usually takes input, processes it and provides useful output.	<b>Graphics Window</b>	The output area in Small Basic for any images, shapes or turtle drawings
<b>Solid State Drive</b>	A type of permanent storage inside a computer. Very small, very fast and uses little power.	<b>TextWindow</b>	The input and output area in Small Basic for all text.
<b>RAM</b>	A temporary area of storage, used by a computer when working on the programs which are currently being used	<b>Line Number</b>	Used to help us find a specific part of our program quickly – each line of code is automatically given a number
<b>CPU</b>	The component of a computer which carries out program instructions. Stands for Central Processing Unit.	<b>Penup</b>	Lifts the turtle off the page so that it no longer draws a line when moved
<b>Software</b>	The programs and features on a computer – made up of program instructions.	<b>WriteLine</b>	Writes the given text on the text window as output
<b>Algorithm</b>	A set of steps which provides a solution to a given problem.	<b>Bug</b>	A problem, mistake or error in a program which results in it not working as intended
<b>Sequence</b>	Program instructions which are carried out in a specific order	<b>Debugging</b>	The process of working out where an error is in a program and fixing it.
<b>Small Basic</b>	A programming language which enables us to write simple programs	<b>Logic Error</b>	An error which allows the program to still run, but it does not behave as you expected it to.
<b>Code Wheel</b>	Part of Small Basic which enables us to discover new commands or quickly enter program instructions by pressing TAB	<b>Syntax Error</b>	An error which will not allow the program to run because the computer does not understand the spelling or grammar you have used.
<b>Object</b>	The “thing” which we want to control or manipulate in our program.	<b>Runtime Error</b>	An error which causes a program to crash when running – can be caused by logic errors or other problems which means a program behaves unexpectedly.
<b>Method</b>	Something which an object can do – such as draw, move, read text, output text	<b>Iteration</b>	The process of repeating a section of code a set number of times
<b>Property</b>	Something which describes an object – such as speed, colour, quantity	<b>For Loop</b>	A method of iteration where we specify how many times we want something to be repeated.
<b>Turtle</b>	An object in Small Basic which enables us to draw shapes when given the correct commands	<b>While Loop</b>	A method of iteration where code will be repeated until a given condition is met.

