Basic **Programming** Vocabulary

Algorithm
An **algorithm** is a precise sequence of instructions for successfully carrying out a task. It will be written in everyday language but the steps might be capable of translation into a programming language. There might be a number of workable algorithms for a task but not all will be as efficient as the others.

AND / OR
AND means 'as well as' and is inclusive. For instance, "I like cola AND milk (too)" **OR** suggests either one thing or another but not both or all. They are called logical operators. (See operator)

Bug
A **bug** is an error in a program that stops it from working in the way it should.

Conditional
A **conditional** is when something happens only on condition something else happens first. See also: If…Then…Else

Data
Data are a collection of numbers and facts before they are processed to become information.

Debug
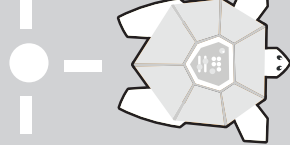**Debugging** is the process of going through a program's code to locate and fix a problem or mistake.

Decomposing
Decomposing is when you break a problem down into sections in order to be able to solve it more easily.

Embed (Nest)
If something is **embedded** or **nested** in a program it means that one piece of programming is contained within another.

If…Then…Else
If…Then…Else is a computer's way of evaluating something and saying that if it has a particular attribute it will do one thing, otherwise it'll do something else.

Information
Information is what data becomes after they are organised. It might be reported in words or a chart of some sort. (See data)

Input
Input can be either the device you use to interact with a computer or an instruction in a program to key in words or numbers using one of those devices.

Language
A programming **language** is the name given to one of the many ways in which a computer can be given instructions in a program. Examples include C++, JavaScript, Logo, PHP, Python and Ruby.

Logic
If someone is using **logic** they are explaining something by following a set of rules, even if they don't always realise that. Using the word 'because' can show reasoning. Guessing is not using logic.

Loop/Repeat
To **loop** or **repeat** is the process of performing the same task again and again usually, but not always, for a set number of times.

Operator
An **operator** tells the computer what to do with inputs values and variables. (See inputs values and variables.)

Output
Output can be either the device a computer uses to give you information or the actual information itself. Output can come in many forms such as words, images movement and sound.

Parallelism
In some computer languages it is possible to make the computer perform more than one task at the same time. This is called **parallelism**.

Print
Print can mean either print some output (words, numbers or images) on a screen or on paper through a printer. Nowadays it is even possible to print in 3D!

Print Inline (Code Crunch)
Code Crunch has a special instruction to **Print Inline**. This puts different pieces of text on the same line.

Procedure
A **procedure** is a subset of a program that does a particular thing. It can be called up by the main program at any time to save having to type it out again and again.

Program
A **program** is a sequence of instructions (or algorithm) written in a language or code that a computer can understand and put into action. A computer will do exactly what it is told so a program must be accurate.

#Rule#
Explore the super computer. Click on the words to find out what they mean.

Sequence
In programming a **sequence** means the ordered steps in a program.

Simulation
A **simulation** is an accurate representation of a real life activity. We use simulations when something is either too dangerous or too expensive to do for real.

Value
A **value** the number or word we give to a variable. (See variable)

Variable
A **variable** is a label to which a value can be assigned. In most programming languages a variable is a letter but in Code Crunch they are EducationCity characters. As the name suggests variables can vary!

EducationCity.com