

# GCSE Computer Science [https://quizlet.com/ 5qnqdf](https://quizlet.com/5qnqdf)

## KS4 Knowledge Organiser – Theory 25 – Translators and programming tools

Key Vocab	
Opcode	The part of an instruction that tells the CPU the operation to be executed.
Operand	The part of the instruction that tells the CPU that data or which to apply the opcode.
Translator	A program that converts source code (High level) to m code (Low level).
High level code	Programming languages that are most like human language. They make programming easier because the programmer can concentrate on the logic of the program and not worry about the hardware.
Low level code	Binary code that a CPU can execute.
Assembly Language	A low-level symbolic code made of pneumatic words converted by an assembler.
Assembler	A translator for converting assembly language code to object code.
Instruction set	The complete set of instructions that a processor can handle.
Source code	The program written in a high-level language before conversion to machine code.
Object code	The machine code produced by a computer.
Compiler	Compiles work through the source code, spot certain errors and translate all code into a machine code file called object code. Object code is stored in a file to be executed.
Linker	A program used with a compiler or assembler to provide links to the libraries needed for an executable program.
Interpreter	Interpreters work through the source code and translate it one command at a time then immediately execute it. When errors are found the process of execution will stop. (Like in Python).
Execution	The process of running a program.
Editor	A software used to write source code in a simple way. No frills.
Integrated Development Environment	A software tool that provides many of the utilities required to develop a program in one place. Common features may include an editor for a particular language, debugging tools, systematic progression through a program and a linker.
Run time environment	All the necessary facilities to run a program on a different platform, rather than creation of a program.

Programming Standards
Code should follow agreed conventions (EG Lowercase for variable names, schemes to be followed).
Language code is written in.
Functions used to tidy up repeated code.
Comments explain the code clearly.
Correct use of indentation.
Useful identifiers (File names & Variable names)
Code should follow agreed conventions

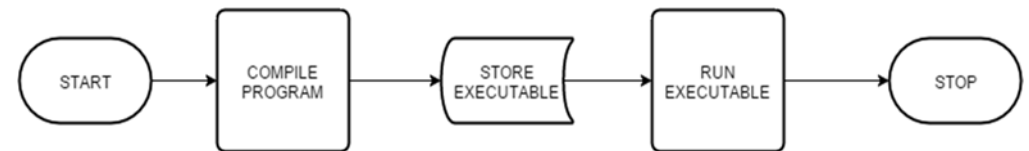
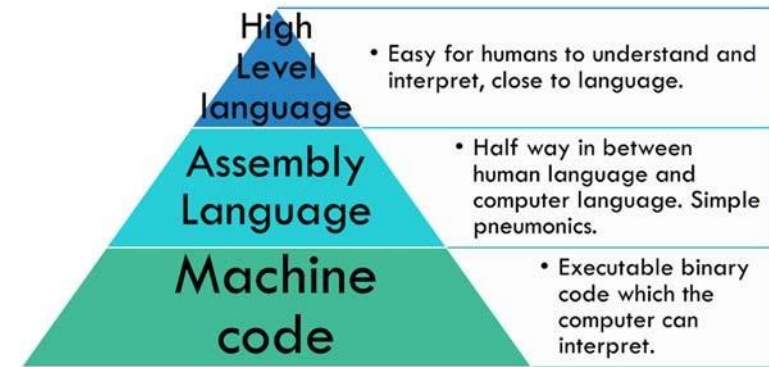


Figure 1 - How a compiler translates programs.

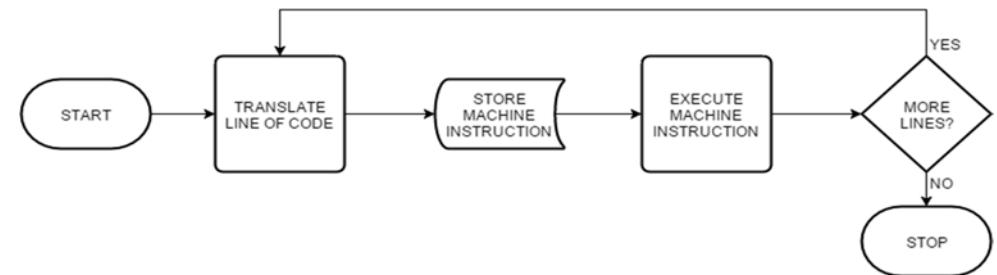


Figure 2 - How an interpreter translates programs.