

KS3 Assessment – Year [7] Progress Grid

Subject: Computing

These are the objectives a student on each Pathway needs to achieve by the end of year 9, to ensure they are making expected progress:

	Computer Science	Information Technology	Digital Literacy
Exceptional performance	Students will describe components (servers, browsers, pages, HTTP and HTTPS protocols etc) and how they work together. Students will describe the impact that internet connected devices have on people. Students will design and create sequences that use variables and arithmetic operations (+ - / *). They can implement count-controlled and condition-controlled in a program and evaluate which one is best in a program. Students can decompose a large problem into a smaller one and apply constructs learned to solve problems.	Students use conditional formatting and functions such as COUNTIF and IF in a spreadsheet. They can explain the difference between a primary and secondary source of data. Students are able to evaluate online sources for use in their own work.	Students will be able to give examples of how to make positive contributions to online debates and discussions. Students will recognise what data is collected 'about me' with or without my knowledge when online.
Pathway 1	Students will explain how data is transmitted across networks. Students will be able to compare the pros and cons of wired vs wireless networks. Students will describe the services that are provided by the internet. Students will be able to trace variables within a sequence. Students can modify the flow of a sequence using conditions. Students understand why iteration is used and identify where condition-controlled iteration can be used in a program. Students can identify where lists are used in a program and implement their use.	Students use functions SUM, COUNTA, MAX, MIN and AVERAGE in a spreadsheet. They create appropriate charts in a spreadsheet. They can explain the difference between data and information. Students apply referencing techniques and understand the concept of plagiarism. They evaluate online sources for use in their own work. Students are able to organise the content of a blog based on credible sources.	Students will explain strategies for assessing the degree of trust they can place in people or organisations online. They will also explain how their internet use is often monitored (e.g. by school or internet service provider).
Pathway 2	Students will know what a network protocol is and define the term 'bandwidth'. They will recognise that there is a difference between the internet and the www. Students will be able to predict the outcome of a simple sequence and modify. Students will be able to define the term variable and predict the outcome of a sequence that uses variables. Students will create programs that use conditions. They can define the term iteration. Students know that subroutines are called by the main program or other subroutines. They can describe the need for lists.	Students use formatting techniques in a spreadsheet. They use the auto-fill tool to replicate data. They understand the term data and can analyse data that is collected. Students can apply the key features of a word processor. They have an understanding of licensing issues involving online content. Students can use tools to refine searches by usage rights. Students can critique digital content for credibility. They can apply techniques in order to identify whether a source is credible. Students can design the layout of a blog to suit the audience.	Students will be able to describe how bullying may change as we grow older and recognise when it is taking place online. Students can select appropriate images for a given context. Students can evaluate formatting techniques.
Pathway 3	Students will define what a computer network is and be able to identify at least 1 piece of network hardware. Students know what an algorithm is. Students know that each computer system follows the control flow – input/process/output. Students will know what a condition (selection) is and recognise that it will be evaluated as either true or false. They will define a subroutine as a group of instructions and know what a list is. Students understand that decomposition is used to break down problems into smaller tasks.	Students use basic formulae with cell references for calculations in a spreadsheet (+, -, *, /). Students know how to collect data. Students can select appropriate software for a given task. Students can identify the key features of a word processor. Students are able to construct a blog using appropriate software.	Students will identify and demonstrate actions to support others who are experiencing difficulties online. They will know how to create and use strong and secure passwords. They will know the rules of the computer room.