Pewsey Vale School – ICT and Computing
Assessment and Reporting Structure 2015-2016

Assessment Grades			Aspects of Achievement in ICT & Computer Science
New GCSE Grade	**Current GCSE Grade**	**"Old" NC Level**	**Computer Science**
0	U	1/2	• Pupils draw their own storyboards of everyday activities. • Pupils plan and give direct commands to make things happen such as playing robots. • Pupils solve simple problems using programmable toys. • Pupils classify items in simple sets of data.
2/1	G	3	• Pupils recognise similarities between storyboards of everyday activities. • Pupils plan a linear (non-branching) sequence of instructions. Computer Science: A Curriculum for Schools • Pupils give a linear sequence of instructions to make things happen. • Pupils develop and improve their instructions. • Pupils present data in a systematic way.
3	F	4	• Pupils analyse and represent symbolically a sequence of events. • Pupils recognise different types of data: text; number; instruction. • Pupils understand the need for care and precision of syntax and typography in giving instructions. • Pupils can give instructions involving selection and repetition. • Pupils can 'think through' an algorithm and predict an output. • Pupils can present data in a structured format suitable for processing.
4	E	5	• Pupils partially decompose a problem into its sub-problems and make use of a notation to represent it. • Pupils analyse and present an algorithm for a given task. • Pupils recognise similarities between simple problems and the commonality in the algorithms used to solve them. • Pupils explore the effects of changing the variables in a model or program. • Pupils develop, try out and refine sequences of instructions, and show efficiency in framing these instructions. They are able to reflect critically on their programs in order to make improvements in subsequent programming exercises. • Pupils are able to make use of procedures without parameters in their programs; Pupils will also be able to manipulate strings and select appropriate data types. • Pupils can design and use simple (1D) data structures.

5	D	6	- Pupils describe more complex algorithms, for example, sorting or searching algorithms. - Pupils can describe systems and their components using diagrams. - Pupils can fully decompose a problem into its sub-problems and can make use of a notation to represent it. - Pupils can recognise similarities in given simple problems and able to produce a model which fits some aspects of these problems. - Pupils use programming interfaces to make predictions and vary the rules within the *programs*. Pupils assess the validity of their programs by considering or comparing alternative solutions. - Pupils are capable of independently writing or debugging a short program. - Pupils make use of procedures with parameters and functions returning values in their programs and are also able to manipulate 1-dimensional arrays. - Pupils can design and use 2D data structures.
6	C	7	- Pupils describe key algorithms, for example sorting/searching, parity, and are aware of efficiency. - Pupils can fully decompose a problem into its sub-problems and can make error-free use of an appropriate notation to represent it. - Pupils can recognise similarities in given more complex problems and are able to produce a model which fits some aspects of these problems. - Pupils use pre-constructed modules of code to build a system. - Pupils can design and use complex data structures including relational databases. - Pupils select and use programming tools suited to their work in a variety of contexts, translating specifications expressed in ordinary language into the form required by the system. - Pupils consider the benefits and limitations of programming tools and of the results they produce, and pupils use these results to inform future judgements about the quality of their programming. - Pupils program in a text-based programming language, demonstrating the processes outlined above. Pupils document and demonstrate that their work is maintainable. Pupils can debug statements. - Pupils can analyse complex data structures, use them in programs and simplify them.

7	B	8	• Pupils independently select appropriate programming constructs for specific tasks, taking into account ease of use and suitability. • Pupils can recognise similarities in more complex problems and are able to produce a model that fits most aspects of these problems • Pupils independently write the program for others to use and apply advanced debugging procedures. • Pupils can analyse, use and simplify complex data structures, for example, normalisation. • Pupils demonstrate an understanding of the relationship between complex real life and the algorithm, logic and visualisations associated with programming.
8	A	-	• Pupils can recognise similarities between more complex problems, and are able to produce a general model that fits aspects of them all. • Pupils competently and confidently use a general-purpose text-based programming language to produce solutions for problems using code efficiently.
9	A**	-	•

Pewsey Vale School – ICT and Computing
Assessment and Reporting Structure 2015-2016

Assessment Grades			Aspects of Achievement in ICT & Computer Science
New GCSE Grade	**Current GCSE Grade**	**"Old" NC Level**	**ICT**
0	U	1/2	• Pupils use simple editing and formatting techniques to develop their work. • They make informed choices when using ICT to explore what happens in real and imaginary situations
1	G	3	• Pupils use editing and formatting techniques to develop and refine their work to improve its quality and presentation • Pupils can answer questions when using ICT models and simulations. • Pupils use communication tools to share and exchange their ideas with others, and follow strategies for staying safe.
2/3	F	4	• Pupils develop simple ICT-based models to explore patterns and relationships, and make predictions about the consequences of their decisions • Pupils create and combine different forms of information, refining and presenting it for a particular purpose, showing an awareness of audience and the need for quality. • Pupils communicate and exchange information and ideas with others, collaborating to develop and improve work.
3/4	E	5	• Pupils combine ICT tools within the overall structure of an ICT solution. • Pupils use ICT to structure, refine and present information in different forms and styles for specific purposes and audiences. • Pupils exchange information and ideas with others in a variety of ways, including using digital communications. • Pupils assess the use of ICT in their work and are able to reflect critically in order to make improvements in subsequent work.
4/5	D	6	• Pupils plan and design ICT-based solutions to meet a specific purpose and audience, demonstrating increased integration and efficiency in their use of ICT tools. • Pupils present their ideas in a variety of ways and show a clear sense of audience. • Pupils use ICT-based models to make predictions and vary the rules within the models. • Pupils assess the validity of these models by comparing their behaviour with information from other sources. • Pupils plan and review their work, creating a logically structured portfolio of digital evidence of their learning.
5/6	C	7	• Pupils are able to for present information to different audiences. • Pupils consider the benefits and limitations of ICT tools and information sources and of the results they produce, and they use these results to inform future judgements about the quality of their work.

			• Pupils make use of audience and user feedback to refine and enhance their ICT solutions.
6/7	**B**	**8**	• Pupils design successful ways to collect and prepare information for processing. • Pupils design and implement ICT products and solutions for others to use. • Pupils can work to a brief set by a client.
7/8	**A**	**-**	• Pupils evaluate software packages and ICT-based models, analysing the situations for which they were developed and assessing their efficiency, ease of use and appropriateness. • Pupils suggest refinements to existing systems and design, implement and document systems for others to use, predicting some of the consequences that could arise from the use of such systems.
9	**A****	**-**	•

Pewsey Vale School – ICT and Computing
Assessment and Reporting Structure 2015-2016

Assessment Grades			Aspects of Achievement in ICT & Computer Science
New GCSE Grade	**Current GCSE Grade**	**"Old" NC Level**	**Digital Literacy**
0	U	1/2	• Pupils find and use information to answer questions. They sort and organise information and present it in different forms. • Pupils use ICT to communicate with others following instructions on safe use. • Pupils describe how they use ICT to develop their work.
1	G	3	• Pupils can recognise what is acceptable and unacceptable behaviour when using technologies and online services. • Pupils search for and use information from a range of sources and make judgements about its usefulness when following straightforward lines of enquiry. • Pupils describe their use of ICT inside and outside school.
2/3	F	4	• Pupils can demonstrate responsible use of technologies and online services, and knows a range of ways to report concerns. • Pupils refine searches to find, select and use information, questioning its reliability. • Pupils understand the need for collecting information in a format that is suitable for processing. • Pupils interpret their findings, question plausibility and recognise that poor-quality information leads to unreliable results. • Pupils understand the benefits of online communication and can manage some of the risks associated with the digital environment. • Pupils compare their use of ICT with other methods and with its use outside school.
3/4	E	5	• Pupils understand a range of ways to use technology safely and securely. • Pupils select the information they need for different purposes, check its accuracy and organise it in a form suitable for processing • Pupils use ICT to organise, store and retrieve information using logical and appropriate structures. • Pupils use ICT safely and responsibly. They discuss their knowledge and experience of using ICT and their observations of its use outside school.
4/5	D	6	• Pupils can uses technologies and online services securely, and know how to identify and report inappropriate conduct. • Pupils can use a greater range and complexity of information. Where necessary, pupils use complex lines of enquiry to test hypotheses.

			• Pupils can discuss the impact of ICT on society
5/6	C	7	• Pupils can recognise that persistence of data on the internet requires careful protection of online identity and privacy. • Pupils take part in informed discussions about the use of ICT and its impact on society • Pupils can select and use information to develop systems suited to work in a variety of contexts. • Pupils combine information from a variety of ICT-based and other sources
6/7	B	8	• Pupils independently select appropriate information sources and ICT tools for specific tasks, taking into account ease of use and suitability. • Pupils can use technology safely, respectfully & responsibly. • Pupils take part in informed discussions about the social, economic, ethical and moral issues raised by ICT.
7/8	A	-	• Pupils are able to discuss their own and others' use of ICT, they use their knowledge and experience of information systems to inform their views on the social, economic, ethical and moral issues raised by ICT.
9	A**	-	•