**KS3 ICT / COMPUTING ASSESSMENT YEAR 8**

**Student Name Teacher Class Year**

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| **Target Level** |  | **Term 1** |  | **Term 2** |  | **Term 3** |  | **Term 4** |  | **Term 5** |  | **Term 6** |  | **Final****Level** |  |

**LEVEL 3**

❒❒❒❒❒❒❒ I recognise similarities between storyboards of everyday activities.

❒❒❒❒❒❒❒ I plan a linear (non-branching) sequence of instructions.(if statement??

❒❒❒❒❒❒❒ I develop and improve their instructions. (review??).

❒❒❒❒❒❒❒ I present data in a systematic way. (graphs, reports, presentation)

❒❒❒❒❒❒❒ I give a linear sequence of instructions to make things happen. Robomind, formula.

**LEVEL 4**

❒❒❒❒❒❒❒ I can analyse and represent symbolically a sequence of events. (data flow)

❒❒❒❒❒❒❒ I recognise different types of data: text; number; instruction.

❒❒❒❒❒❒❒ I understand the need for care and precision when programming (errors).

❒❒❒❒❒❒❒ I can give instructions involving selection and repetition. (loop, if, else)

❒❒❒❒❒❒❒ I can ‘think through’ an algorithm and predict an output.

❒❒❒❒❒❒❒ I can present data in a structured format suitable for processing.

Examples of what I did

What do I need to do next?

**LEVEL 5**

❒❒❒❒❒❒❒ I partially decompose a problem into its sub-problems and make use of a notation to represent it.

❒❒❒❒❒❒❒ I analyse and present an algorithm for a given task.(robomind)

❒❒❒❒❒❒❒ I explore the effects of changing the variables in a model or program. (Spreadsheet)

❒❒❒❒❒❒❒ I develop, try out and refine sequences of instructions, and show efficiency in framing these instructions.

❒❒❒❒❒❒❒ I can make use of procedures without parameters in their programs;

❒❒❒❒❒❒❒ I will also be able to manipulate strings and select appropriate data types.

❒❒❒❒❒❒❒ I can design and use simple (1D) data structures.

❒❒❒❒❒❒❒ I recognise similarities between simple problems and algorithms.

❒❒❒❒❒❒❒ I can reflect critically on their programs in order to make improvements in subsequent programming exercises

Examples of what I did

What do I need to do next?

**LEVEL 6**

❒❒❒❒❒❒❒ I can describe more complex algorithms, for example, sorting or searching algorithms.

❒❒❒❒❒❒❒ I can describe systems and their components using diagrams.

❒❒❒❒❒❒❒ I can design and use 2D data structures.

❒❒❒❒❒❒❒ I can fully decompose a problem into its sub-problems and can make use of a notation to represent it.

❒❒❒❒❒❒❒ I can recognise similarities in given simple problems and able to produce a model which fits some aspects of these problems.

❒❒❒❒❒❒❒ I use programming interfaces to make predictions and vary the rules within the *programs*.

❒❒❒❒❒❒❒ I can assess the validity of their programs by considering or comparing alternative solutions.

❒❒❒❒❒❒❒ I am capable of independently writing or debugging a short program

❒❒❒❒❒❒❒ I make use of procedures with parameters and functions returning values in the programs and can manipulate 1-dimensional arrays.

Examples of what I did

What do I need to do next?

**LEVEL 7**

❒❒❒❒❒❒❒ I can describe key algorithms, for example sorting/searching, parity, and are aware of efficiency.

❒❒❒❒❒❒❒ I can fully decompose a problem into its sub-problems and can make error-free use of an appropriate notation to represent it.

❒❒❒❒❒❒❒ I can recognise similarities in given more complex problems and are able to produce a model which fits some aspects of these problems.

❒❒❒❒❒❒❒ I use pre-constructed modules of code to build a system.

❒❒❒❒❒❒❒ I can debug statements.

❒❒❒❒❒❒❒ I can design and use complex data structures including relational databases.

❒❒❒❒❒❒❒ I can analyse complex data structures, use them in programs and simplify them.

❒❒❒❒❒❒❒ I consider the benefits and limitations of programming tools and of the results they produce.

❒❒❒❒❒❒❒ I can use these results to inform future judgements about the quality of their programming.

❒❒❒❒❒❒❒ I program in a text-based programming language, demonstrating the processes outlined above.

❒❒❒❒❒❒❒ I can document and demonstrate that their work is maintainable.

❒❒❒❒❒❒❒ I select and use programming tools suited to a variety of contexts, translate specs. in everyday language into the form required by the system.

Examples of what I did

What do I need to do next?

How well have you worked? Write the date onto the line to track your progress.

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**Teacher Comment**