

## Computer Science - Control and Monitoring (CM)

### Control

CM1	I know devices can be controlled with buttons and respond to signals and commands	KS1
CM2	I can discuss safe use of ICT equipment	KS1
CM3	I can use the mouse and keyboard to communicate with a computer	KS1
CM4	I can recognise and talk about control technology in and out of school	KS1
CM5	The operating system, or "OS," is software that communicates with the hardware/allows programs to run	KS1
CM6	I understand that an algorithm is a step-by-step problem-solving procedure	KS1
CM7	I understand that a program is an application of an algorithm on a computer	KS1
CM8	I can produce an algorithm understanding cause & effect	KS1
CM9	I understand that sequencing is putting steps in the right order in an algorithm	KS1
CM10	I understand that decomposition breaking down the steps in an algorithm	KS1
CM11	I understand that Abstraction is sorting the key or relevant information in a program	KS2
CM12	I can create a simple electric circuit with light and battery & insert a switch to make the circuit interactive	KS2
CM13	I can use a switch as a digital input to control events	KS2
CM14	I can recognise and talk about Input and Output Devices	KS2
CM15	I can recognise features of a control program & use one to sequence virtual traffic lights	KS2
CM16	I can explore variables in a procedure	KS2
CM17	I can connect input and Output devices using a virtual model or control box	KS2
CM18	I can use a sequence of instructions (algorithms) to control input and output devices	KS2
CM19	I can use my knowledge of control technology and algorithms to create simple flow diagrams	KS2
CM20	I can use wait and repeat and loop commands	KS2
CM21	I can test a simple program/algorithm	KS2
CM22	I can explain why I may change my instructions/debug after testing	KS2
CM23	I can explain language such as "If", "When" and "Then"	KS2
CM24	I can make simple predictions about effects if I change a procedure (logical reasoning)	KS2

### Monitoring

CM25	I can recognise different sensors and talk about how they are used in the world around us	KS1
CM26	I can attach different sensors to a computer & talk about their uses	KS1
CM27	I can read simple sensing equipment & explain how, when & why data is collected for Monitoring	KS1
CM28	I can use a data logger to monitor changes in surroundings and interpret it using a line graph	KS2
CM29	I can set relevant time periods for computing data and storing it.	KS2
CM30	I can explain simple differences in data log chart.	KS2
CM31	I can use analogue sensors to control the operation of a program	KS2
CM32	I can use 2 or more sensors to detect environmental or physical changes over time	KS2
CM33	I can program outputs to react to conditions met by inputs e.g. if it gets dark, turn lights on	KS2
CM34	I can use Control Technology to enhance Projects	KS2