

Knowledge Organiser: Computing

Programming A – Variables in Games

In Year 5, you learnt:

- a microcontroller is a programmable device that can control outputs and respond to inputs.
- more than one output component (up to two motors) can be connected to a Crumble (microcontroller)
- a condition is a statement that can only be true or false
- programmers use conditions in programs to trigger actions



Key Vocabulary		
variable	algorithm	debug
name	code	improve
change	task	evaluate
value	artwork	share
set	program	
design	project	
event	test	



The variables being used are _____.

In the light of this variable being changed I predict

Possible improvements may include _____.

When designing a game I first _____ Then _____ Next _____ Finally _____.

It is my understanding that variables in this program are used to _____.

Due to _____ this variable has been named _____.

On reflection I would _____.

to improve my project.



Key Facts

- a 'variable' is defined as something that can be set and changed throughout the running of a program
- variables can hold numbers or letters
- a variable is a placeholder for a single value in the memory of a computer, and that all variables are uniquely named
- events are the triggers for making action happen, like selecting the play button on any screen
- when programming, there are four levels ('levels of abstraction') that can help describe a project
- the four levels are: design, running the code (Task - what is needed, Design - what it should do, Code - how it is done, Running the code - what it does)
- an algorithm is a precise sequence of instructions, or set of rules, for performing a task