

Year 4 Computing

Coding

Key Vocabulary

action	The way that objects change when programmed to do so.
alert	A type of output - it shows a pop up of text on the screen.
algorithm	A precise step-by-step set of instructions used to solve a problem or achieve an objective.
background	In 2Code, the background is an image in the design that does not change.
button	A type of object that responds to being clicked on.
code blocks	A way to write code using blocks which each have an object or action.
command	A single instruction in 2Code.
debug/debugging	Fixing code that has errors so that the code will run the way it was designed to.
design	A plan for the program showing the visual look of the user interface (the screen) with the objects. The algorithm can be represented as part of the design, showing actions and events.
execute	When you run the code.
event	An occurrence that causes a block of code to be run.
flowchart	A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram.
'If' statement	Used to decide which bit of code to run. IF a condition is true, then the commands inside the block will be run.
'If/Else' statement	If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else block' are run.
implement	When a design is turned into a program using coding.
input	Information going into the computer e.g. the user moving or clicking the mouse or entering characters on the keyboard.
nest	When coding commands are put inside other commands.
object	Items in a program that can be given instructions to move or change in some way.
prompt	A question or request asked in coding to obtain information from the user in order to select which code to run.
repeat	Used to make a block of commands run a set number of times or forever.
repeat until	In 2Code, this command will repeat a block of commands until a condition is met.
run	Clicking the Play button to make the computer respond to the code.
selection	A decision command. When selection is used, a program will choose which bit of code to run depending on a condition.
sequence	When a computer program runs commands in order.
timer	Used to run a block of commands after a timed delay or at regular intervals.
variable	A named area in computer memory.

Are you a Milecastle Megamind?

Can you explain the stages of the design, code, test, debug coding process?

How can variables and if/else statements be useful when coding programs with selection?

What does selection mean in coding and how can you achieve this in 2Code?

Key Learning

To begin to understand selection in computer programming.

To understand how an IF statement works.

To understand how to use co-ordinates in computer programming.

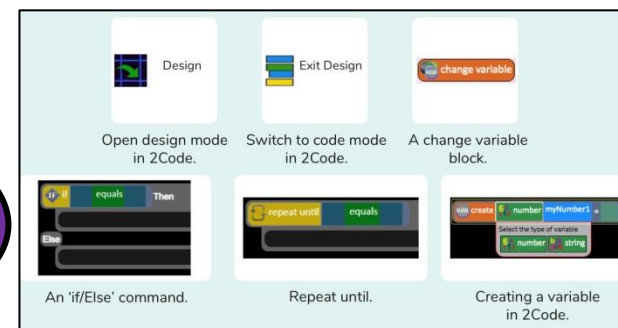
To understand the 'repeat until' command.

To understand how an IF/ELSE statement works.

To understand what a variable is in programming.

To use a number variable.

To create a playable game.



The image shows three examples of 2Code interface elements:

- Design Mode:** Shows a 'Design' button, an 'Exit Design' button, and a 'change variable' block.
- Code Mode:** Shows an 'if/else' command block with 'equals' and 'then' labels.
- Repeat until:** Shows a 'repeat until' block with 'equals' and 'then' labels.
- Creating a variable:** Shows a 'create' block with a dropdown menu for variable type (number, string) and a text input field.