

What should I already know?

- I understand algorithms (1.4 Lego Builders)
- I can sequence instructions (1.4 Lego Builders)
- I can follow instructions (1.4 Lego Builders)
- I can code a turtle (1.5 Maze Explorers)
- I can create programs using sequencing and repeat (1.5 Maze Explorers)

Key Resources



What will I know at the end of the unit?

- I understand what instructions are and can predict what might happen when they are followed.
- I can use code to make a computer program.
- I understand what object and actions are.
- I understand what an event is.
- I can use an event to control an object.
- I can begin to understand how code executes when a program is run.
- I understand what backgrounds and objects are.
- I can plan and make a computer program.

Key Questions

<p>What is coding?</p> <p>Writing instructions in a way that a computer can interpret them to make a program.</p>	<p>Why is it useful to design before coding?</p> <p>It helps you to get a clear idea of what you want your program to do. You can use the design to decide which objects you need to add, what to call them and what actions they should perform.</p>	<p>How can you make characters move in a 2Code program?</p> <p>In design mode, add a character. Change properties such as the name and scale. Exit from design mode and drag your character's code block into the coding window. From the properties menu, select right, left, up or down.</p>
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Key Vocabulary

<p>Action</p> <p>The way that objects change when programmed to do so. For example, move.</p>	<p>Algorithm</p> <p>A precise, step-by-step set of instructions used to solve a problem or achieve an objective.</p>	<p>Background</p> <p>In 2Code the background is an image in the design that does not change.</p>
<p>Code</p> <p>Instructions that a programmer enters into a computer that cause the computer to perform a certain way.</p>	<p>Coding</p> <p>Writing instructions that the computer can process (understand) to make programs (software).</p>	<p>Command</p> <p>A single instruction in 2Code.</p>
<p>Debug/ Debugging</p> <p>Fixing code that has errors so that the code will run the way it was designed.</p>	<p>Event</p> <p>An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key or clicking the screen.</p>	<p>Execute</p> <p>This is the proper word for when you run the code. We say, 'the program (or code) executes.'</p>
<p>Instruction</p> <p>Detailed information about how something should be done or operated.</p>	<p>Object</p> <p>Items in a program that can be given instructions to move or change in some way (action).</p>	<p>Output</p> <p>Information that comes out of the computer e.g. sound that comes out of the speakers.</p>
<p>Plan</p> <p>When coding, a plan means including the objects and actions into a written document that shows what the program should look like (the design) and what the objects should do (the actions).</p>	<p>Programmer</p> <p>A person who writes computer programs. Sometimes called a coder.</p>	<p>Properties</p> <p>These determine the look and size of an object. Each object has properties such as the image, scale and position of the object.</p>
	<p>Run</p> <p>This is what you do when you click the Play button in 2Code: The program runs.</p>	

Key Images

