

Year 1	Computer Science: Computational Thinking	Unit 2: Programming animations
CS1.1 I understand what algorithms are. CS1.2 I can write simple algorithms. CS1.3 I understand the sequence of algorithms is important. CS1.4 I can debug simple algorithms. CS1.5 I understand that algorithms are implemented as programs on digital devices. National curriculum links - Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions - Create and debug simple programs - Use logical reasoning to predict the behaviour of simple programs		
1	<u>Comparing tools</u> To choose a command for a given purpose - I can find the commands to move a sprite - I can use commands to move a sprite - I can compare different programming tools During this lesson learners will become accustomed to the ScratchJr programming environment. They will discover that they can move characters on-screen using commands, and compare ScratchJr to the Bee-Bots used in the previous unit.	
2	<u>Joining blocks</u> To show that a series of commands can be joined together - I can use more than one block by joining them together - I can use a Start block in a program - I can run my program During this lesson learners will discover that blocks can be joined together in ScratchJr. They will use a Start block to run their programs. They will also learn additional skills such as adding backgrounds and deleting sprites. Learners will follow given algorithms to create simple programs.	
3	<u>Make a change</u> To identify the effect of changing a value - I can find blocks that have numbers - I can change the value - I can say what happens when I change a value During this lesson learners will discover that some blocks in ScratchJr have numbers underneath them. They will learn how to change these values and identify the effect on a block of changing a value.	
4	<u>Adding Sprites</u> To explain that each sprite has its own instructions I can show that a project can include more than one sprite	

	● I can delete a sprite ● I can add blocks to each of my sprites During this lesson learners will be taught how to add and delete sprites in ScratchJr. They will discover that each sprite has its own programming area, and learn how to add programming blocks to give instructions to each of the sprites.
5	<u>Project design</u> To design the parts of a project ● I can choose appropriate artwork for my project ● I can decide how each sprite will move ● I can create an algorithm for each sprite During this lesson learners will choose appropriate backgrounds and sprites for a 'Space race' project. They will decide how each sprite will move, and create an algorithm based on the blocks available in ScratchJr that reflects this.
6	<u>Following my design</u> To use my algorithm to create a program ● I can use sprites that match my design ● I can add programming blocks based on my algorithm ● I can test the programs I have created During this lesson learners will use their project designs from the previous lesson to create their projects on-screen in ScratchJr. They will use their project design, including algorithms created in the previous lesson, to make programs for each of their rocket sprites. They will test whether their algorithms are effective when their programs are run.