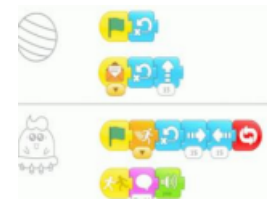
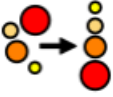
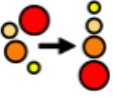


Year 1 Computing – Moving a robot

Vocabulary			Knowledge	
Algorithm	A set of instructions to perform a task		<u>Programming a robot</u> Programming is when we make a set of instructions for computers to follow. Designing an algorithm can help us to make the sprite do the things that we want it to do. Scratch jr. is an app that we can use in order to code our own stories and animations. It involves sprites (characters on the screen). Scratch uses characters called sprites that can be changed. We use algorithms to program the sprite to do different things. In Scratch, we can stack blocks together side by side in order to create programs made up of sequences. Blocks can be removed by dragging them from the programming area back into the blocks palette. We can use repeating blocks to make an action repeat more than once. We can use the programming blocks to make the sprite move. We drag them into the programming area. Clicking the block in the area makes the sprite perform on the stage. Backgrounds are added by clicking this icon. End blocks are red. These show what happens at the end of your program. If the animation does not work correctly the first time, we can debug the algorithm. This means finding and fixing the problems.	    
Command	To give an instruction			
Evaluate	To look at something and decide what is good about it			
Program	A list of instructions a computer can understand			
Sequence	A pattern in which one thing follows another			
Sprite	A programmable character on the screen			
Debug	To find and fix errors in the code			
Instructions	A set of steps to complete a task			
Design	A plan to make something			
Background	The scene that is at the back			

Quizzing		Quiz at home																																																																																																	
Ask your partner the questions below. Can they find the correct answer on the right-hand side?		Ask your adult to look at the KO.																																																																																																	
What is debugging?	A set of instructions to perform a task	Quiz them using the vocabulary and knowledge section or the quiz questions. • Can they beat your score? • Can they score more than 5? 10? 																																																																																																	
What are the programming blocks used for?	The red end block																																																																																																		
How can we remove any unwanted blocks?	To tell the sprite what to do																																																																																																		
What block can we use to end the program?	To find and fix errors in a program 																																																																																																		
What is an algorithm?	By dragging the block back to the blocks palette																																																																																																		
BIG Questions		Beat the Adult																																																																																																	
1. Can you name two similarities between bee-bots and Scratch? 2. Why does the background need to be appropriate for the sprite? 3. What can we do if the algorithm is not working correctly? 4. What can we do if the program is too long?		Your teacher can give 10 facts in 3 minutes about this topic. How many can you give to your partner? 																																																																																																	
Creative tasks	Word search – Can you find all the words?																																																																																																		
1. Hide a small object in the room. Write or draw instructions for someone to find it (e.g., “Move forward 3 steps, turn right, move forward 2 steps”). 2. Draw a map with obstacles (tables, chairs) and plan a route for your robot to reach a goal without hitting anything. 3. Play the Human Robot Game. One person is the “robot,” and another gives commands like “forward 2 steps, turn left.” The robot must follow exactly.	<table><tr><td>S</td><td>E</td><td>Q</td><td>U</td><td>E</td><td>N</td><td>C</td><td>E</td><td>P</td><td>U</td><td>J</td><td>D</td></tr><tr><td>M</td><td>J</td><td>T</td><td>E</td><td>V</td><td>A</td><td>L</td><td>U</td><td>A</td><td>T</td><td>E</td><td>E</td></tr><tr><td>I</td><td>D</td><td>E</td><td>S</td><td>I</td><td>G</td><td>N</td><td>A</td><td>I</td><td>C</td><td>Y</td><td>B</td></tr><tr><td>F</td><td>H</td><td>C</td><td>O</td><td>M</td><td>M</td><td>A</td><td>N</td><td>D</td><td>L</td><td>O</td><td>U</td></tr><tr><td>P</td><td>M</td><td>J</td><td>S</td><td>P</td><td>R</td><td>I</td><td>T</td><td>E</td><td>B</td><td>B</td><td>G</td></tr><tr><td>J</td><td>B</td><td>A</td><td>C</td><td>K</td><td>G</td><td>R</td><td>O</td><td>U</td><td>N</td><td>D</td><td>N</td></tr><tr><td>Y</td><td>Q</td><td>P</td><td>R</td><td>O</td><td>G</td><td>R</td><td>A</td><td>M</td><td>D</td><td>K</td><td>M</td></tr><tr><td>U</td><td>U</td><td>A</td><td>L</td><td>G</td><td>O</td><td>R</td><td>I</td><td>T</td><td>H</td><td>M</td><td>C</td></tr></table>		S	E	Q	U	E	N	C	E	P	U	J	D	M	J	T	E	V	A	L	U	A	T	E	E	I	D	E	S	I	G	N	A	I	C	Y	B	F	H	C	O	M	M	A	N	D	L	O	U	P	M	J	S	P	R	I	T	E	B	B	G	J	B	A	C	K	G	R	O	U	N	D	N	Y	Q	P	R	O	G	R	A	M	D	K	M	U	U	A	L	G	O	R	I	T	H	M	C	Algorithm Background Command Debug Design Evaluate Program Sequence
S	E	Q	U	E	N	C	E	P	U	J	D																																																																																								
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U	U	A	L	G	O	R	I	T	H	M	C																																																																																								

Write the definition for each of the following words			Write the vocabulary word for each definition		
Vocabulary			Vocabulary		
Algorithm			A _____	A set of instructions to perform a task	
Command			C _____	To give an instruction	
Evaluate			E _____	To look at something and decide what is good about it	
Program			P _____	A list of instructions a computer can understand	
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Background			B _____	The scene that is at the back	

Enquiry

What is the same? What is different?



Commands

Using these blocks, can you create a sequence to follow at home?



What do I know about algorithms?

What will this algorithm do? How can we make the program simpler to follow?



Knowledge	Knowledge
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