Beech Hill Primary School Knowledge Organiser

Topic: Computing – Computer Science	Year group	Term
Discovery Coding: On The Move	Year 1	Spring 2 4 sessions

Background knowledge
Children will have learned about coding physical objects (Bee Bots) in the Autumn Term.

What should I already know?
Show resilience and perseverance in the face of challenge. I learn and use new vocabulary. I will use a range of resource to work on my fine motor skills. Shape. Set and work towards simple goals. Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. I will use i-pads to complete a simple program. I can use the whiteboard to complete simple programs independently. I will write instructions.

National Curriculum Objectives / Key Skills	The Journey
Pupils should be taught to: * 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 * use technology purposefully to create, organise, store, manipulate and retrieve digital content	1. To understand that when a computer does something it is following instructions called code. (Under the Sea) 2. To give instructions to make objects on the screen move when the program starts. (Royal Chase) 3. To use code to make objects move when they are clicked on. (Transport on the go) 4. To use code to write a computer program where objects in a space scene move when they are clicked on. (Another planet)

Links to CAS progression pathways	
Programming and development • Knows that users can develop their own programs, and can demonstrate this by creating a simple program in an environment that does not rely on text. • Executes, checks and changes programs. • Understands that programs execute by following precise instructions. *Links to Curriculum for Excellence* • I understand that sequences of instructions are used to control computing technology. • I can develop a sequence of instructions and run them using programmable devices or equivalent.	

Outcomes
An overview of what children will know / can do Working towards: Pupils learn that programs work by following clear instructions. With help, they begin to drag and click objects to make simple programs work on their screen. Expected: Pupils learn that programs work by following clear instructions. They are introduced to the fact that programs respond to inputs to do different things. The children begin to make their own examples of programs which use these inputs. Exceeding: Pupils learn that programs work by following clear instructions. They are introduced to the fact that programs respond to inputs to do different things and the children can use a range of inputs including directions, clicks. The children can make their own examples of programs which use these inputs.

Key Vocabulary

1. code, instructions, run, up, down, left, right, direction, object, action
2. instructions, code, action, object
3. click event, code, action, object, click
4. program, programming, code, action, object, click, decompose (break down a problem into smaller parts)

Key people / places

"Writing code is a young person's job." Michael Crichton

Question of the week.

1. What does a computer do?
2. What directions are the objects moving in?
3. How can we make the transport objects move?
4. How is the computer making the objects move?