ScratchJr Lesson 2: Following Instructions

Learning Intention	***Success Criteria***
We are learning code by following instructions	- I can use start, move and spin blocks. - I can change how far my cat moves. - I can make my cat dance to instructions.

Resources	PowerPoint for lesson and iPads.
Timing	60-90mins

Lesson Guide	**Summary of the Lesson**
	Learners continue to explore ScratchJr and make the Scratch Cat move to the Hokey Cokey by using different blocks. **Blocks and Icons Introduced:** Move Left, Move Right, Move Up, Move Down, Turn Right, Turn Left, Hop and End.
	
	Un-Plugged Warm up Activity (10mins) – Program the Teacher
	- Tell children that the teacher will now be the computer and they will get to program them! Remind them that they need to say all the steps in the right order using respectful words!
	- Children will be responsible for verbally directing their teacher to special destinations in the classroom (e.g., to a bookcase or a cupboard) or doing a task (e.g., making a sandwich).
	- The instructions the children give to the teacher must be specific. For example, children should not simply say, "Move forward." They should instead say, "Move forward ____ steps." or "Put the peanut butter on the bread" should be "Open the peanut butter jar and use your knife to scoop the peanut butter onto the bread"
	- The teacher should "misinterpret" the children's' answers based on lack of specificity. For example, if the child tells the teacher to turn, the teacher can spin in a full circle.
	- Discuss how important it is to be specific and how important order is in programming.
	- This activity could also be done in small groups.
	
	Discussion (10mins) – Human and Computer Language
	- Computer language is all about giving instructions. When a human is talking to another human they can ask questions, tell stories, give instructions, tell jokes, etc. but when a human is talking to a computer they can only give instructions.
	- Computer instructions are called algorithms.
	- Explain that algorithms are a sequence of steps in the right order.
	- Go over an example with the children e.g. Washing your hands:
	  o Instructions: If a human were telling another human to wash their hands, they'd know what to do!
	  o Algorithm: Now pretend a computer has hands! If a human were telling a computer to wash their hands, the computer would have no idea what to do! You'd need to tell them each step in the right order
	
	Video Tutorial and Steps (30-60mins)
	You should watch the video tutorial with your learners. It covers the following steps to create the Project:
	1. Open the ScratchJr App
	2. Create a new project using the '+' button

	3. Rename the project in the top right corner. 4. Add a plain background e.g. the Farm 5. Move the Scratch cat to left hand side of the page. 6. Display the Hokey Cokey words: When you put your cat in Your cat out In, out, in, out Shake it all about Do the hokey cokey And you turn around That's what it's all about 7. Add the code, testing by pressing the green flag. Remember to change the numbers to make it in time with the song. The code is: Right 4, Left 4, Right 2, Left 2, Right 2, Left 2, Turn Right 4, Turn Left 4, Turn Right 2, Turn Left 2, Down 4, Up 4, Turn Right 12, End. 8. Learners should make changes to their code until they are happy they can sing along. 9. Finally learners can experiment with different combinations to make the cat dance to different dances. **Plenary (10mins)** Allocate time for learners to share their projects with the class. Encourage reflection asking them to think about questions such as: - What happened when they created a program? - Did it work immediately? - Did their character do what they wanted it to do? If not, how did they fix that problem? - How would they change the project next time?