Year 2 – ICT – Summer 2 Probots

ICT Short Term Planning

Year Group: 2 Term: Summer 2 Subject area: ICT

Coverage of Skills	Generic Skills (Most children will…)
Controlling and Modelling I can understand that control devices must be programmed I can put a sequence of instructions together to control a programmable toy I can make my toy turn: • a quarter • a half • a whole turn in each direction I can understand that instructions can be repeated and stored I can develop and record a sequence of instructions I can use an adventure game.	-I can load programs independently -I can use both hands to use the keyboard -I can use appropriate ICT vocabulary -I can make simple modifications to my work

	Learning Objectives	Task design to meet the learning objective (including key questions)
1	I can understand that control devices must be programmed I can make my toy turn: • a quarter • turn in each direction	• Work in pairs to give instructions to a partner to get from one place to another avoiding obstacles (making relevant to current topic e.g. Get across beach avoiding sandcastle, ship wreck, rock etc.). Use directional language forwards, backwards, left, right. Take turns and discuss difficulties. • Repeat trying to estimate number of steps forwards e.g. forwards 5, turn right….. Discuss how they have to modify instructions if not enough steps etc. • Introduce programming 'Probots' in same way. Use one of the probot mats (Swamp/British Isles map) to help demonstrate distance. • Start with probot in one square, what command do

Year 2 – ICT – Summer 2 Probots

		they think they need to give to probot to get to next square? Investigate entering forward command followed by a number to see how far it travels (Probot needs a command of 25 to move its length and also 1 square.) Demo how to move back same amount. • Model clearing probots memory checking screen on back is deleted. • Introduce idea of turning left and right, a quarter turn and entering a command of 90. • Now combine forward and left and right 90 to move probot and change its direction to face some one around the mat. • Children investigate moving probot forward in steps of 25 and turning to face a different direction Challenge – Children to investigate how they can make the probot travel in a square, rectangle.
2	I can make my toy turn: • a quarter • a half • a whole turn in each direction	• Recap how to make probot move forward, backwards, left and right. • Can children predict how to make a half turn? Intro idea of entering 180 for half turn. • Demonstrate programming probot to go to a pre determined square turn a half turn and then return. • Discuss the importance of deleting memory before entering new instructions. • Children investigate making probot move away from them turn a half turn and return to them. Challenge: Explain to a partner how they programmed their probot.

Year 2 – ICT – Summer 2 Probots

3	I can put a sequence of instructions together to control a programmable toy I can understand that instructions can be repeated and stored	• Using map of British Isles explain that probot wants to go on a journey to the beach but on the way it needs to visit certain destinations (set up map with markers that allow for quarter turns). • In groups children design a set of instructions to get probot to the beach turning at each of the destinations.
4		• Using probat mats or pre-prepared grid, children to create own journey for probot to go on including at least one turn (to begin with). • Can they work in pairs to make their probot complete the journey. • Develop additional turns in to make their journey more complex. Challenge – Create own map for probot with destination and places to visit on the way. Design a set of directions for getting there.
	Cross – Curricular links **Website** **Multimedia** **ICT in Society**	