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| **ICT Planning Format** | | **Term: Spring 1** | | **Class: Year 5** | | |
| **Lesson** | **Objective** | **Introduction** | **LA** | **MA** | **HA** | **Plenary** |
| 1 | Write procedures that can be saved and reloaded. | Introduce Flowol 3 to the children. Demonstrate the use of the three main flowchart items: start/stop, output and process.  Show how they can be put together to form a flow chart to turn an input on.  Start 🡪 Turn output 1 on 🡪 delay 2 🡪 Turn output 1 off 🡪 Stop  Discuss the series of “instructions” that are taking place.  Load the zebra crossing mimic and show the flowchart controlling the light – what is the problem?  Discuss the instructions that would need to take place for the zebra crossing to work properly. | Working in a small group, with support, complete a flow chart for the zebra crossing mimic, making the lights turn on, then off. | Working independently with the prompt sheet, create a flowchart for the zebra crossing mimic. | Working independently, create a flowchart for the zebra crossing. | Look at an example of the flowchart for the zebra crossing.  Open up the lighthouse mimic. Demonstrate how the flowchart controls the lighthouse mimic to control the light.  Demonstrate copying the flowchart and changing the delay to 1, to operate output 2 (the horn). |
| 2 | Control mimics by switching inputs on and off. | Recap on last week’s lesson, looking at how to make a light turn on and off.  Open up the lighthouse mimic and ask the children to help you create a flowchart to make the light flash.  Explain to the children that we can control both the light and the horn in the same flowchart if we wish (demonstrate). What happens if we want a different delay though?  Demonstrate creating a second flowchart (with a new start!) with different delays and output controls.  Tell the children that they are going to use decisions to control the horn and the internal lights to the lighthouse. | Create a flowchart to flash the main light only when the sun (input 1) is off.  Extn: do the same, for the horn. | Create a flowcharts to flash the main light and sound the horn only when the sun is off.  Extn: Control the internal lights. | Create a series of flowcharts to control all aspects of the lighthouse mimic.  Extn: try the traffic light mimic. | Look at completed examples of the lighthouse mimic and see how the flowcharts have been created. |
| 3&4 | Combine procedures to solve more complex problems. | Recap on the use of inputs and decisions.  Look at the mobile mimic. Show the three buttons (Input 1, 2 and 3). As the children to explain how they could wire up the blue button (decision) to turn on the light in the balloon.  Show the flowchart to turn on the balloon light.  Now we want the mobile to turn, but only when the green button is on. Explain the use of motors. Show how to wire up the green button (decision) to turn the motor.  Remind the children that we will need lots of flowcharts to control the mobile! | Use instruction set 1 with assistance. | Use instruction set 1, independently. | Use instruction set 2.  **More Able:** Instruction set 3 – work out how to use Vals. | Look at flowcharts so far and recap on any misconceptions. |