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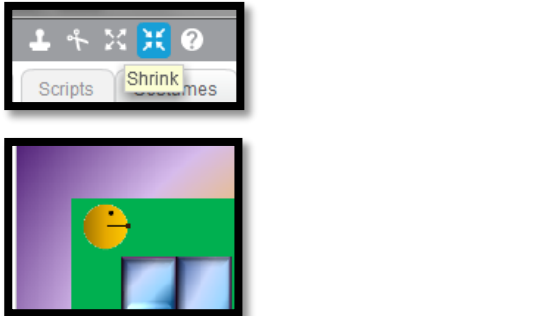

# Year 5 Lesson 1-Pacman1 2.0

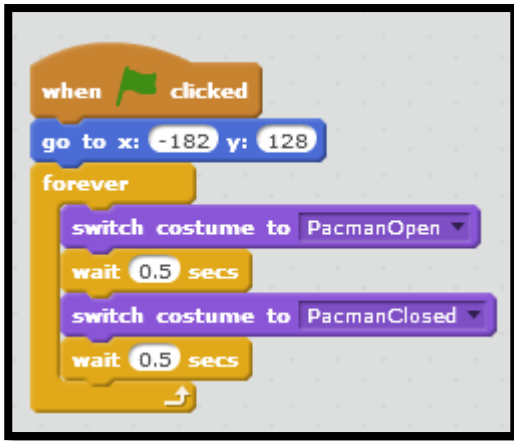
*Resources - Scratch 2 application; Y5L1 Pacman1 S2-0 folder, which contains Y5L1 Pacman1 Help Tutorial PR.pdf (hardcopy) to be used as pupil evidence inside their ICT folder; pencil, to tick off each task on the Y5L1 Pacman1 Help Tutorial PR, pupil videos Tasks 1-6 for independent progression and debugging. A whiteboard/projector (to show videos Task 1-6 and for the teacher demonstration of the Scratch application)*

*Vocabulary-User Interface, Sprite List, Stage, Script Area, Shrink Tool, Duplicate Tool, Thumbnail, Motion Palette-move 10 steps, go to x: y, point in the direction 90, Looks Palette-switch costume to; Event Palette-key space pressed, when green flag clicked; Control Palette wait, forever, stop all, if ....then; Sensing Palette-if touching colour; selection statements.*

## Lesson Objective-To create Level 1 of a Pacman game

**Starter** - Navigate to your named pupil folder on the school network. Open Y5L1 Pacman1 Demo Debug T1-6.sb2 file found inside Y5L1 Pacman1 S2-0 Folder. This Scratch file shows the completion of Tasks1-6 for this lesson and will be used to help you debug your own Scratch project.

	<p><b>T1.</b> Open Y5L1 Pacman1 Start located in your personal folder on the network. Save the file with your initials eg. <b>Y5L1 Pacman1 Start CR MM.</b>                  Select the Pacman Sprite thumbnail. From the <b>Sensing Palette</b>, drag out 2 <b>color is touching</b> blocks.                  Click the square after the word color, then click the square (nose) on the Pacman sprite on the stage. The square will turn the same colour as the Pacman's nose.                  Click the other square after the word touching, then click anywhere on the green area on the stage.                  On the second <b>colour is touching</b> blocks, click the square after the word color, then click the square (nose) on the Pacman sprite on the stage. The square will turn the same colour as the Pacman's nose. Click the other square after the word touching, then click the red square on the stage.</p>
	<p><b>T2.</b> You need to shrink the Pacman so that it fits within the green part of the maze.                   Make sure that the Pacman sprite is selected (there is a blue line around the Pacman thumbnail when it is selected). Select the <b>Shrink Tool</b> and select the Pacman on the stage. Keep tapping Pacman until he is small enough to fit between the maze lines. Drag the Pacman to the top left corner of the stage.</p>
	<p><b>T3.</b> Select the Scripts Tab. From the <b>Event Palette</b> - drag a <b>when green flag clicked</b> block.                  We want to make sure that the Pacman sprite always starts at the top left of the maze.                  From the <b>Motion Palette</b>-drag a <b>go to x: y:</b> (your coordinates will be slightly different those on the image)                  The coordinates will automatically set to where your Pacman sprite is placed on the maze.</p>



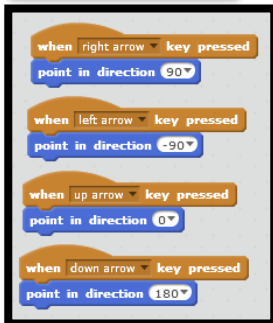
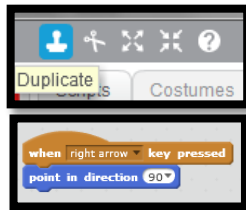
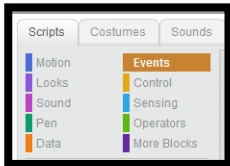
**T3 (cont..)** We want the Pacman to keep opening and closing its mouth.

From the **Control Palette** - drag out a **forever** (loop)  
 From the **Control Palette**- drag 2 **wait secs** blocks and alter the values to 0.5.

From the **Looks Palette** - drag a **switch to costume** - select **PacmanOpen**

From the **Looks Palette** - drag a **switch to costume** - select **PacmanClosed**

Slot together the stack as shown.



**T4.** We want to use the arrows on the keyboard to change the direction of Pacman.

**Face Right:** - From the **Events Palette** - drag a rounded **when space pressed** to the script area, (from the dropdown menu) change it to right arrow).

From the **Motion Palette**, snap underneath, a **point in the direction 90** (this will make the Pacman point right)

Click on the **Duplicate Tool** then click on **when right arrow key pressed**. Duplicate the block 3 times and change the blocks as shown

**Pacman Face Left:** **left arrow, -90**

**Pacman Face Up:** **up arrow, 0**

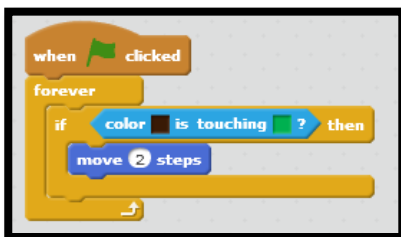
**Pacman Face Down:** **down arrow, 180**



**T5.** We want the Pacman to move continuously as soon as the green flag is clicked.

From the **Event Palette** drag a **when green flag clicked** block. From the **Control Palette** drag out a **forever** loop.

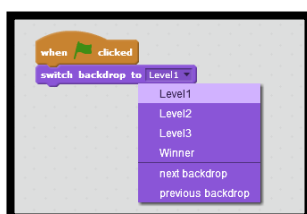
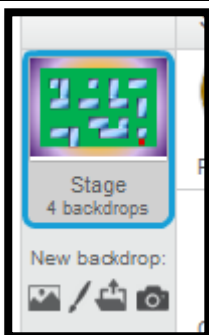
From the **Motion Palette** drag a **move 10 steps**. (change the 10 steps to 2). Remember to save your work.



Click the Green flag and test your work. Pacman moves all over the stage, however we need to keep him on the green path of the maze.

From the **Control Palette** drag out an **if then block**.

Drag the block created in **Task 1** - a **colour is touching ?** (The block with the second square coloured green) and slot it into the **if then block**.



**T6.** Select the Stage thumbnail. We want the game to always start at Level1.

From the **Events Palette**, drag out a **when green flag is clicked** block.

From the **Looks Palette**, drag out a **switch backdrop to .....** Using the drop down arrow, change to **Level1**