# Teacher Training

Grant Agreement number: 645215
Project title: No One Left Behind
Funding Scheme: Innovation Action

The "No one left behind" (NOLB) project aims to promote learning when building knowledge through active engagement. The initial phase of this is to enable students to adapt and create their own games or game design elements with Pocket Code in its visual programming language. As the project develops through its feasibility pilot it plans to increase engagement and pupil retention integrating this approach into school curriculum subjects.

Create a new program

- On the start screen choose "*New*"
- Name your program – (make sure you tick the "create empty program" box)
- Choose portrait or landscape orientation
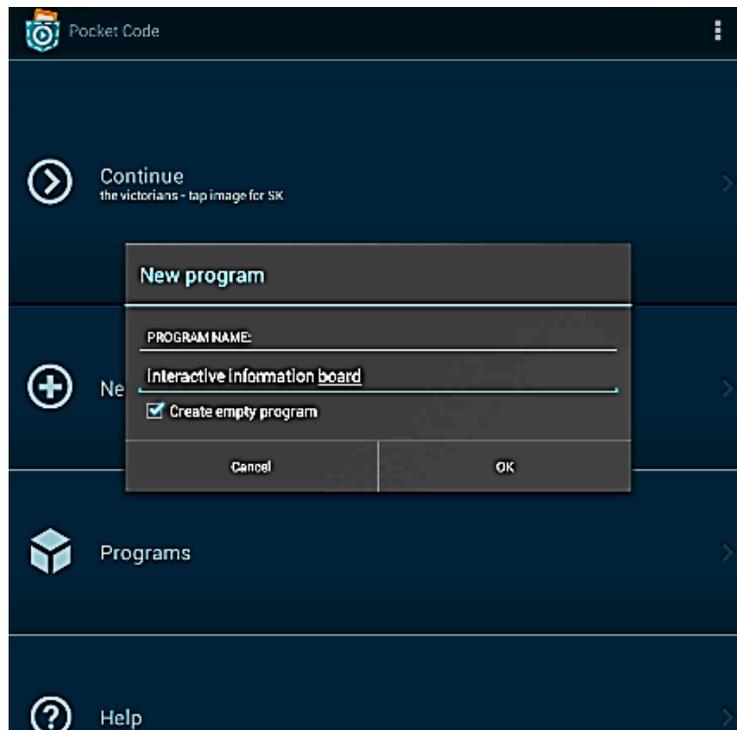
Create a new object

When you have named your program and tapped OK this will take you into the overview page - all it will have is an empty background icon.
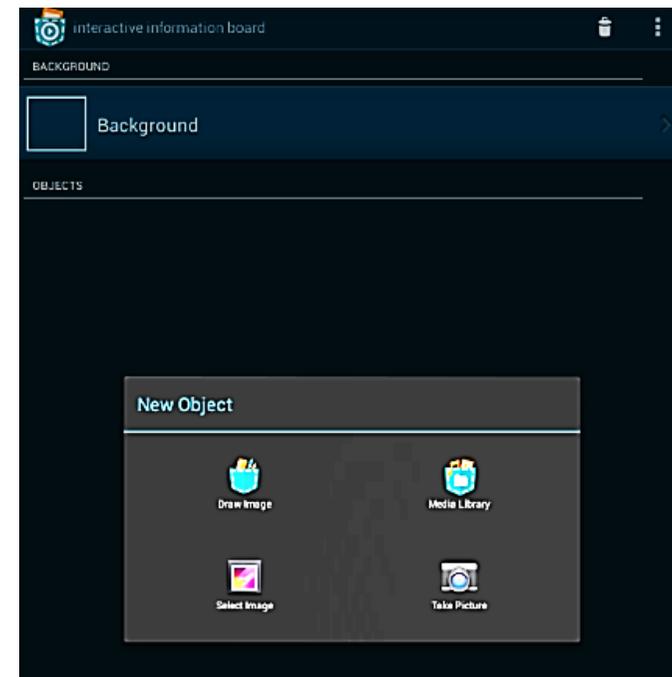
- Press the "+" button (bottom left) where you will create your new object

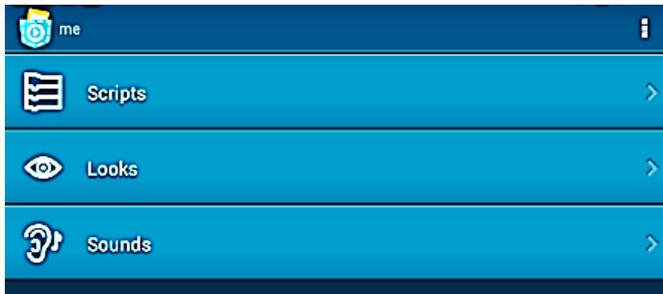**Draw Image:** *Pocket Paint* - A paint editor.
Media Library: This is a collection of downloadable items to use for Pocket Code, which is continually growing.
Select Image: Content you have downloaded
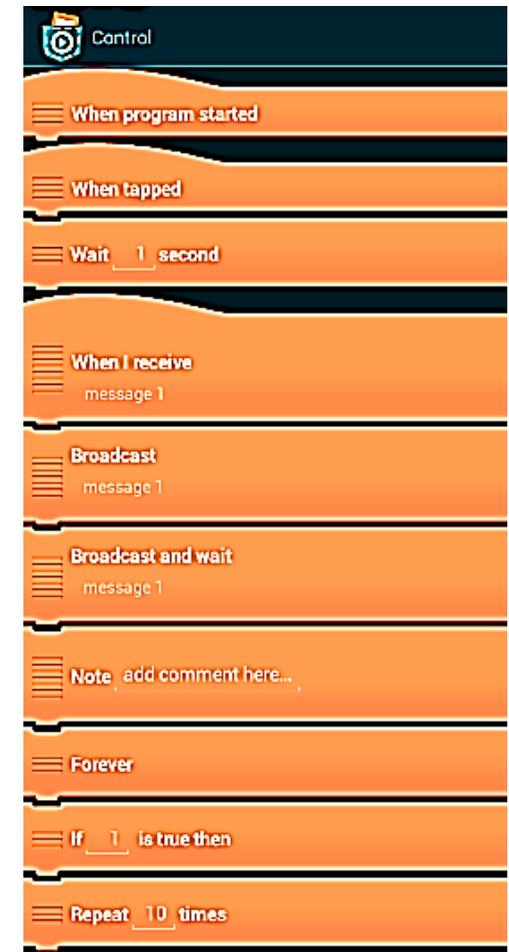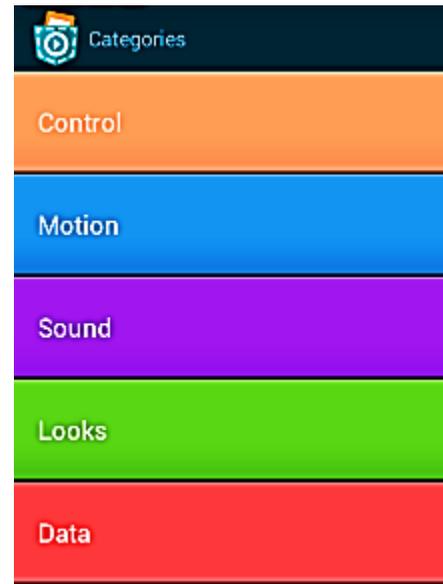**Take picture:** editable photo using your device

Creating Code: Using the scripts

3 parts of the object where we can begin to code.

  a) The scripts/behaviours of your object
  b) The looks of your object
  c) The sounds of your object

Tap scripts to open the empty scripts page and tap "+" to enter the categories page.

The categories page shows the 5 different categories. Under each category you find different types of bricks with certain purposes:
Control - bricks to control the program flow
Motion – find bricks for moving the object
Sound - changing or adding sound to the object
Looks – change how the object looks
Data - variables and lists to save important data about our objects

Tap onto control, this will show you all the bricks you can use under this category. To start, tap on "when program started" (WPS), this will automatically place it on the scripts page.

To position objects on the stage
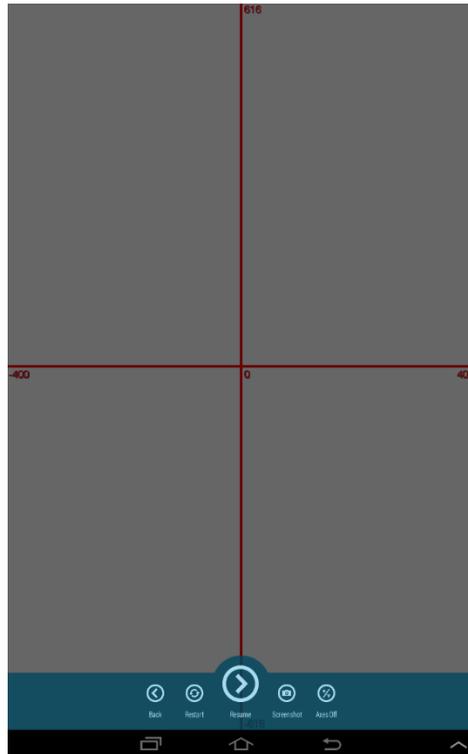
When we create an object it will place itself centrally on the stage.

If we need to place it somewhere else on the stage, press back once. A menu will be displayed on the bottom of the screen. Press "axes on" and you will see that the object is positioned centrally at X: 0 Y: 0.

Add the motion brick: "*Place at X: 100 Y: 200*".
To change the values of X tap on the X value.
This will take you to the formula editor.

How to change brick values and writing more complicated code: The Formula Editor
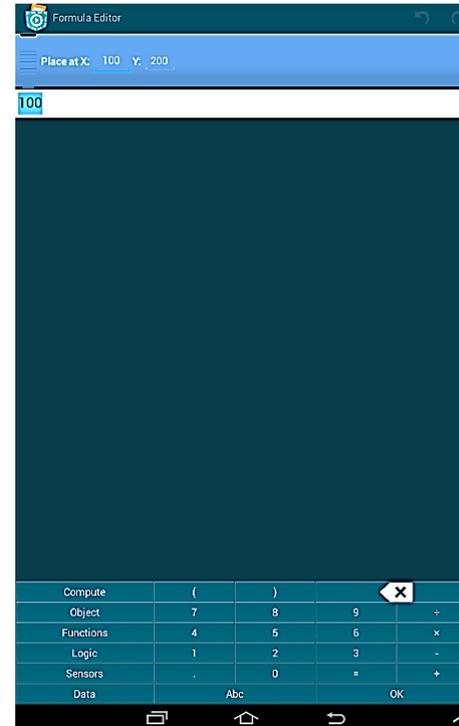
With the formula editor we can make calculations and access the sensor data on our device.

We want to control the object through the positioning of the axes, so tap on the x and y values changing them accordingly.

After pressing OK, check if it is positioned correctly. Press play to view the stage.

Create using Pocket Paint

Go to the Object Overview page and tap '+', in *New Object* choose *'Draw image'* which will take you to Pocket Paint.
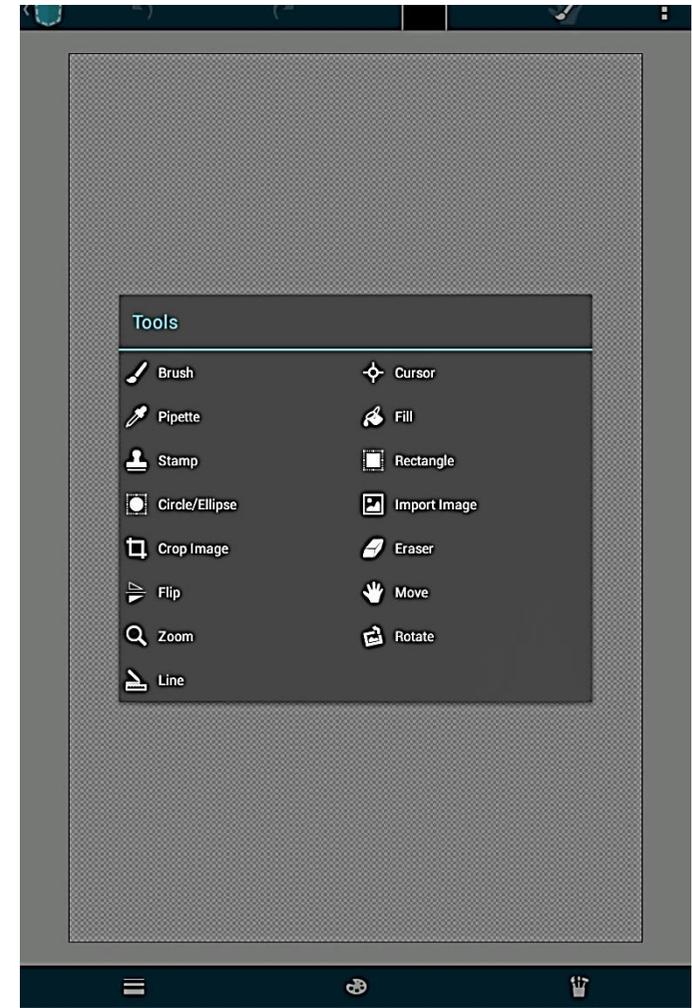
Menu:

- Top right – hand shaded with highlighted brush to paint – tap to change to highlighted hand to move your drawing
- Bottom right – paint pot, to access tools
- Bottom centre – palette, to choose colours
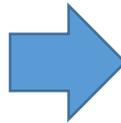- Bottom left – set line thickness

Hints:
- When drawing, depending on the tool, you may need to tap on object to save
- If you have made a mistake, use the back/fwd arrows on the top left

When you have drawn your image, choose the tool: *crop image/resize image* (depending on the image you have created you can simply tap it and it re sizes automatically, or you may have to do it manually)

Tap the cropped image to save, tap back to save changes and name your object. This will take you back to the object's script page, press play and you will notice that your new object has appeared in the centre of the screen (X: 0 Y: 0).

| Tools	
Brush	Cursor
Pipette	Fill
Stamp	Rectangle
Circle/Ellipse	Import Image
Crop Image	Eraser
Flip	Move
Zoom	Rotate
Line	

Creating an interactive information board

OBJECT = PHOTO OF YOURSELF
Insert the following bricks into the script by choosing the correct coloured category and placing them in the order shown to the right.
Control = When Program started
Looks = Set size to _ % (you may need to set the size of your object if it is too large or small)
Motion = Place at X: _ Y: _ (To place the picture higher on the stage)
Control = When tapped
Sound = Start Sound (Tap on *"new"* and this will open the Add Sound menu. Select record sound. Tap on the icon to start and stop your recording - for the purpose of this activity, introduce yourself however you feel is best).

OBJECT = POCKET PAINT DRAWING
Control = When Program started
Motion = Place at X: _ Y: _ (To place the picture somewhere on the stage)
Control = When tapped
Sound = Speak ___ (Tap on *'Hello'* and write down what you want the device to say)
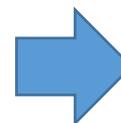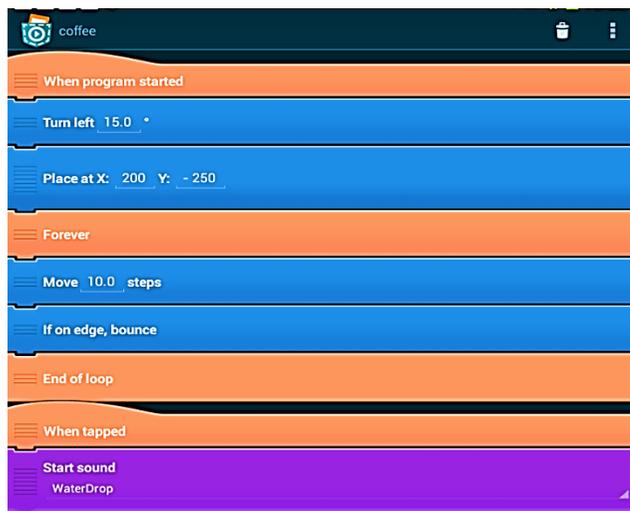
OBJECT = FROM THE MEDIA LIBRARY
Control = When Program started
Motion = Turn left/right 15 (to point the object on an angle)
Motion = Place at X: _ Y: _ (To place the picture somewhere on the stage)
Control = Forever (This will create the "end of loop" brick on the bottom)
Motion = Move 10 steps
Motion = If on edge bounce
End of Loop (will automatically appear)

Control = When tapped
Sound = Start Sound - Tap new and choose Media Library – choose a sound (you have an option to listen to it)