

CODE JAM ART

Coding means writing instructions for computers. A finished set of instructions is called a program. The following instructions are to help you code some super simple art using Scratch, a computer coding language designed for kids and a great starting tool for beginners.

Jam Art

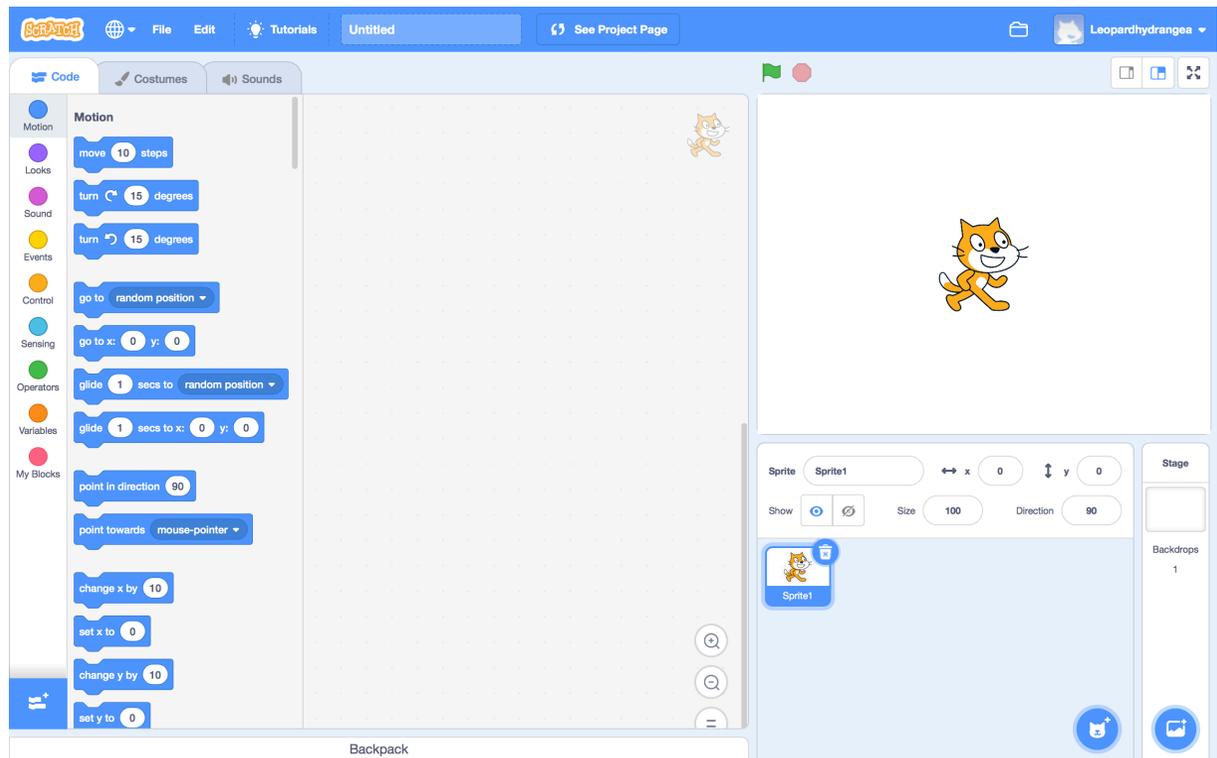
This simple project lets you use a computer mouse to create different flavours (colours) of jam. Wherever you drag the mouse, a rainbow trail of jam is left behind. We'll also include some other effects for once you've mastered that.

Start by logging onto Scratch:

<https://scratch.mit.edu>

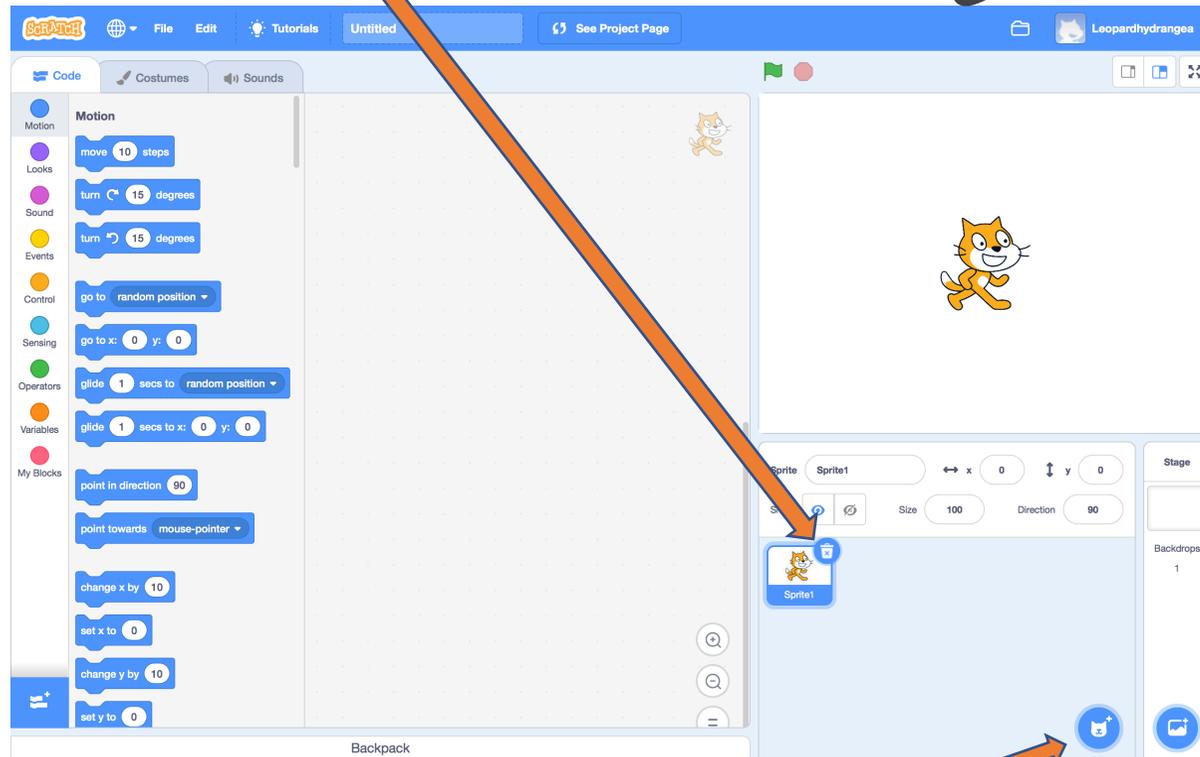
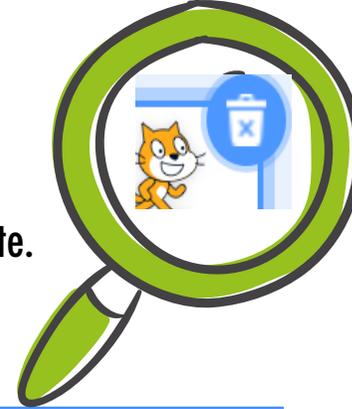
You will need to check with your parents first and ask them to help you set up an account.

You will log into a **Scratch Stage**, the hub of all of your future coding. It should look a bit like this:



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1. Tap on the button next to the little cat that looks like a dustbin. The cat will delete.

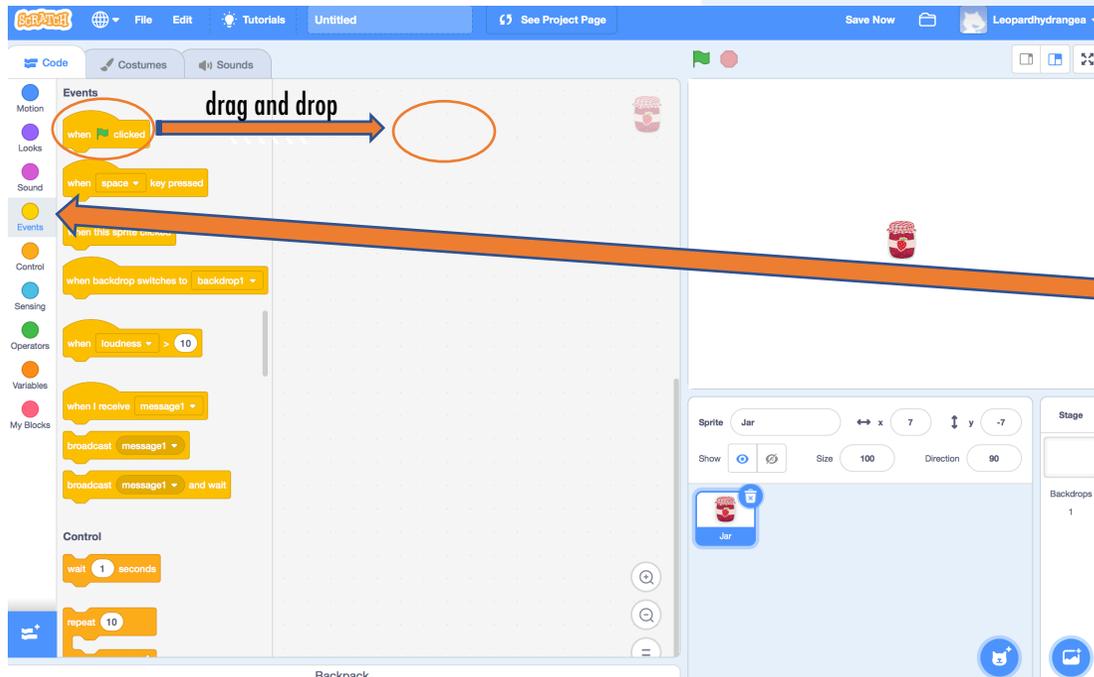


2. Now, tap on the button that looks like a cat head with a plus sign next to it. You will go into a place called the **Sprite Library**.

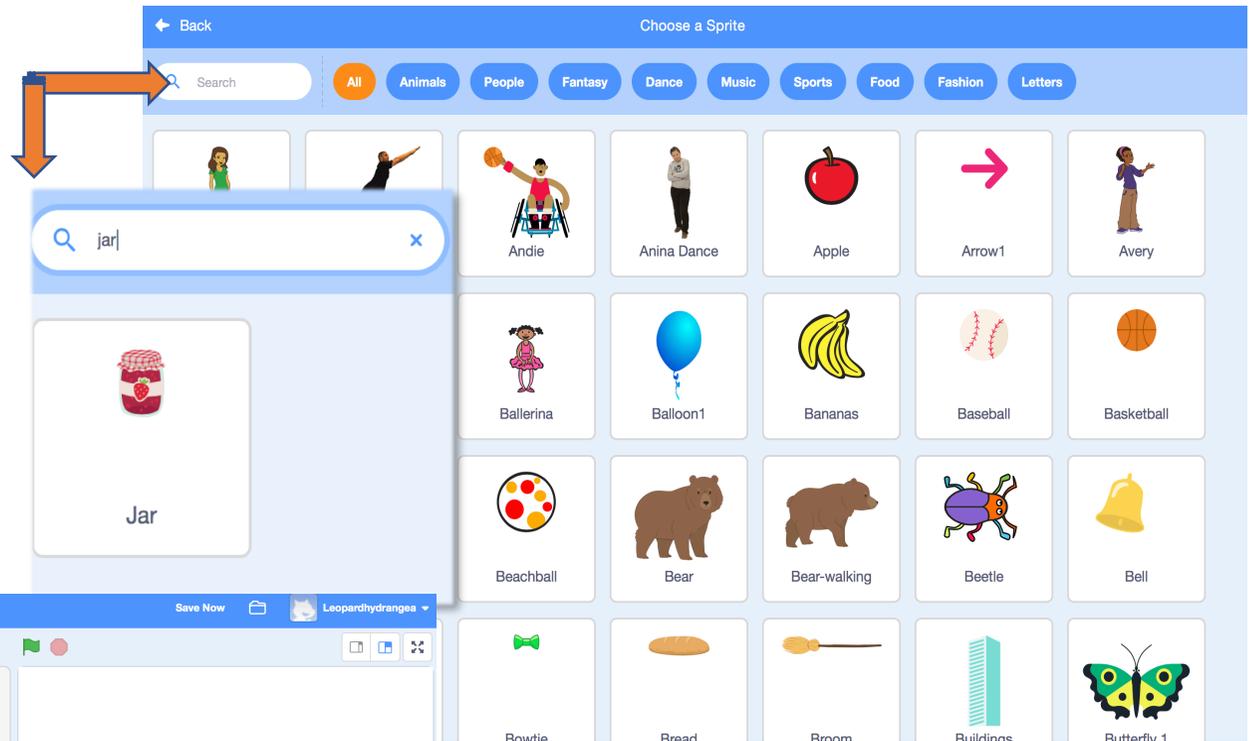
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3. Tap on the search bar and type in **Jar** (yes **Jar**, NOT Jam). Double click on the character that pops up. Once you double click it will take you back into the **Stage**. Don't be overwhelmed by all of the strange-looking blocks, you don't need to use any of the hard ones.

The Stage.



The Sprite Library.

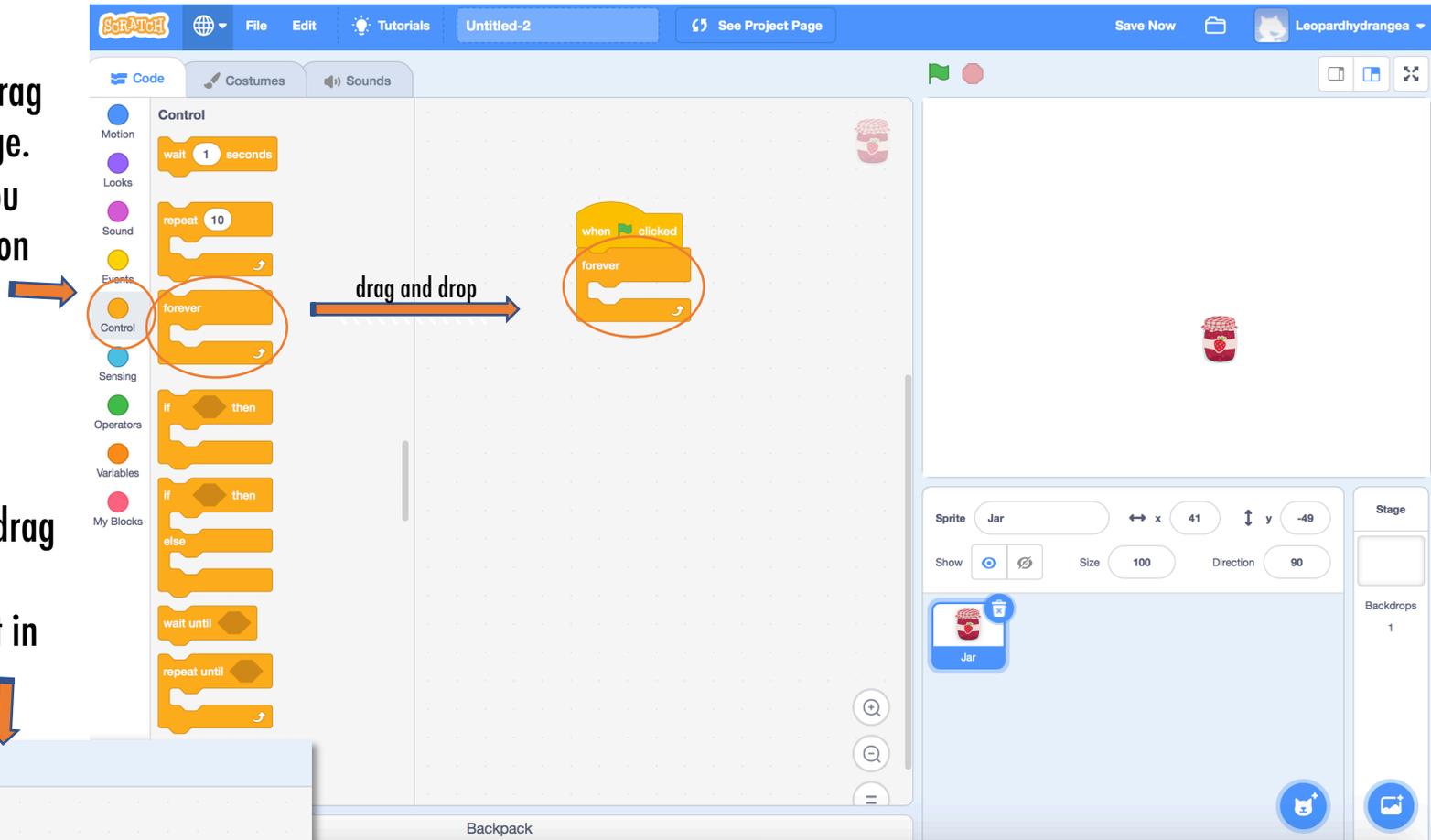


4. Tap on the button labelled **Events**. Then click and drag the block **When Flag Clicked** into the **Stage**.

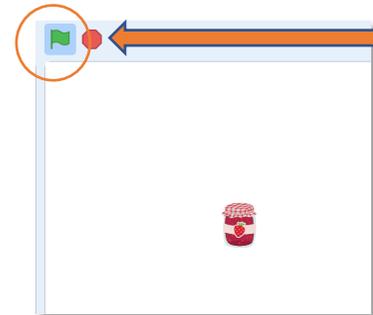
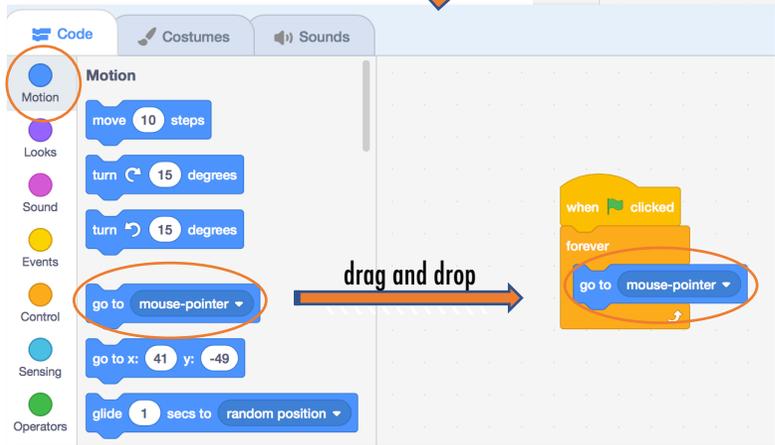


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5. Now, tap on **Control** and drag the loop **Forever** into the stage. This means whatever code you place inside the loop will go on forever.



6. Then, go into **Motion** and drag the button **Go to [mouse pointer]** into the stage. Put it in the **Forever** loop.

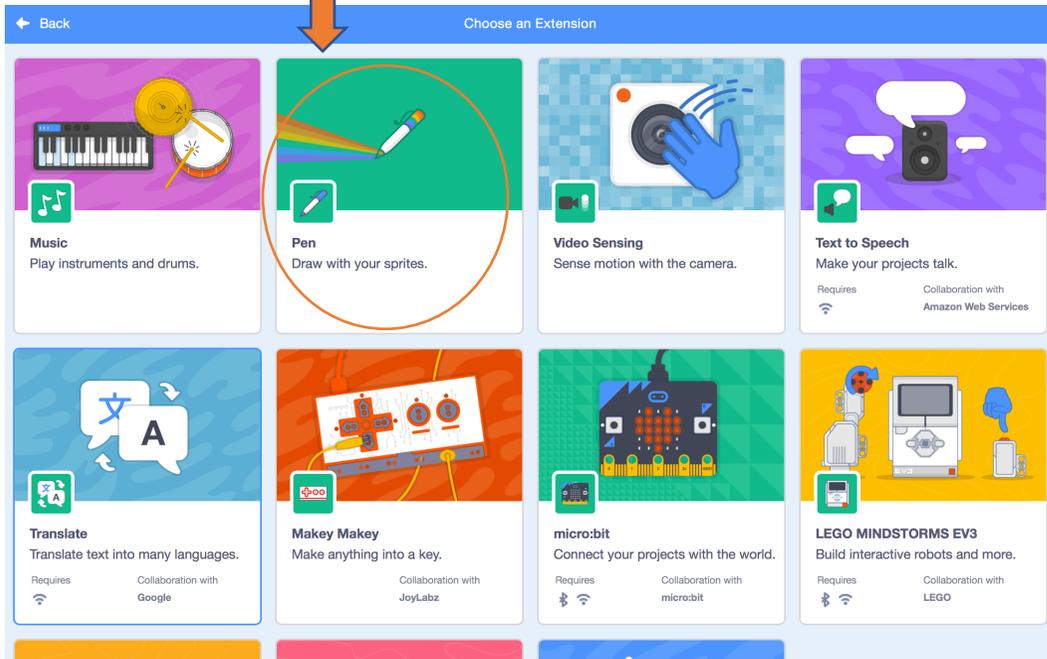
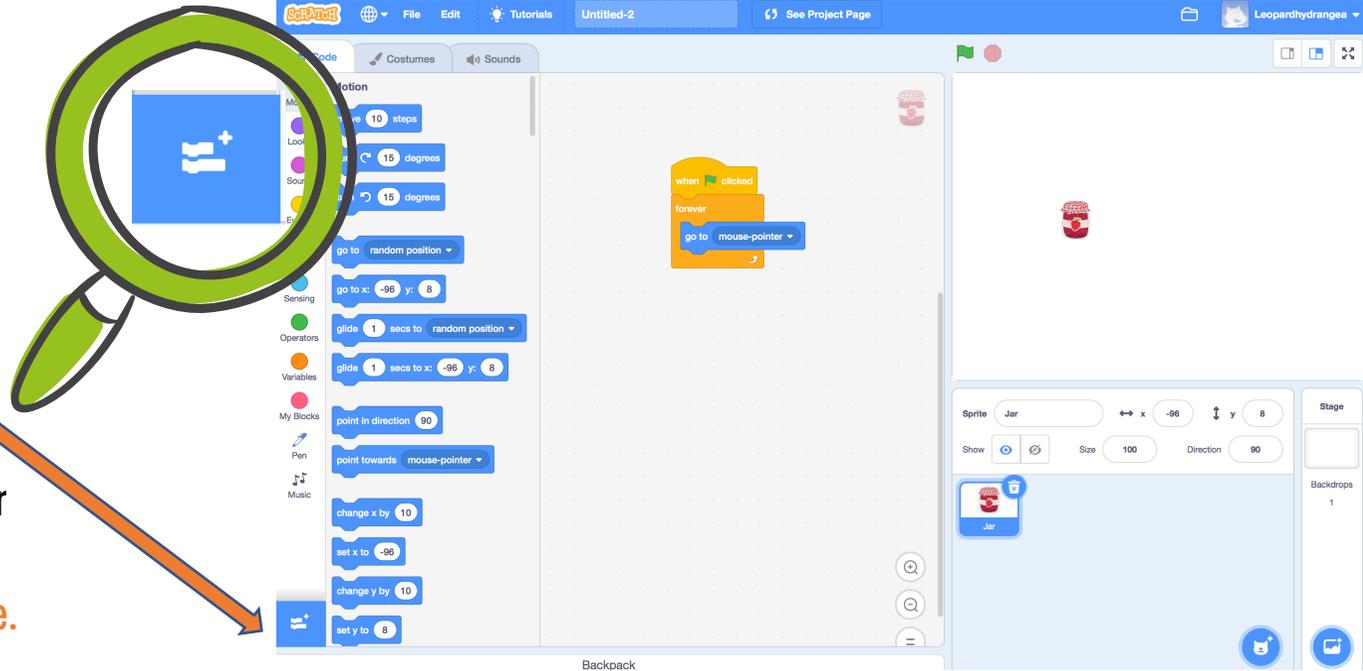


7. Press the **Green flag**. The jam jar should go follow the mouse pointer as you move the mouse about.

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8. Click on **Plus Block**. It will take you to the **Extension Blocks** page.

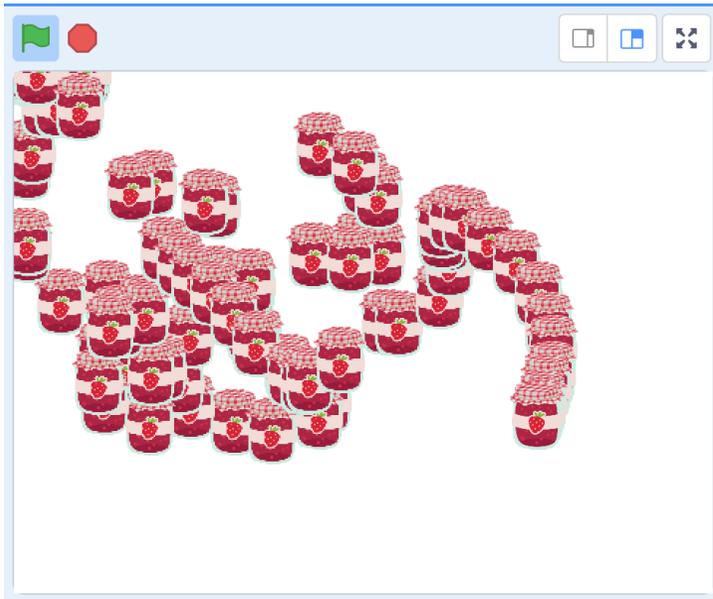
9. Click on **Pen**. This will let you use your jam jar to draw. Once you have clicked on pen, it will take you back to the **Stage**.



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10. Drag **Stamp Block** into the **Stage** as shown.

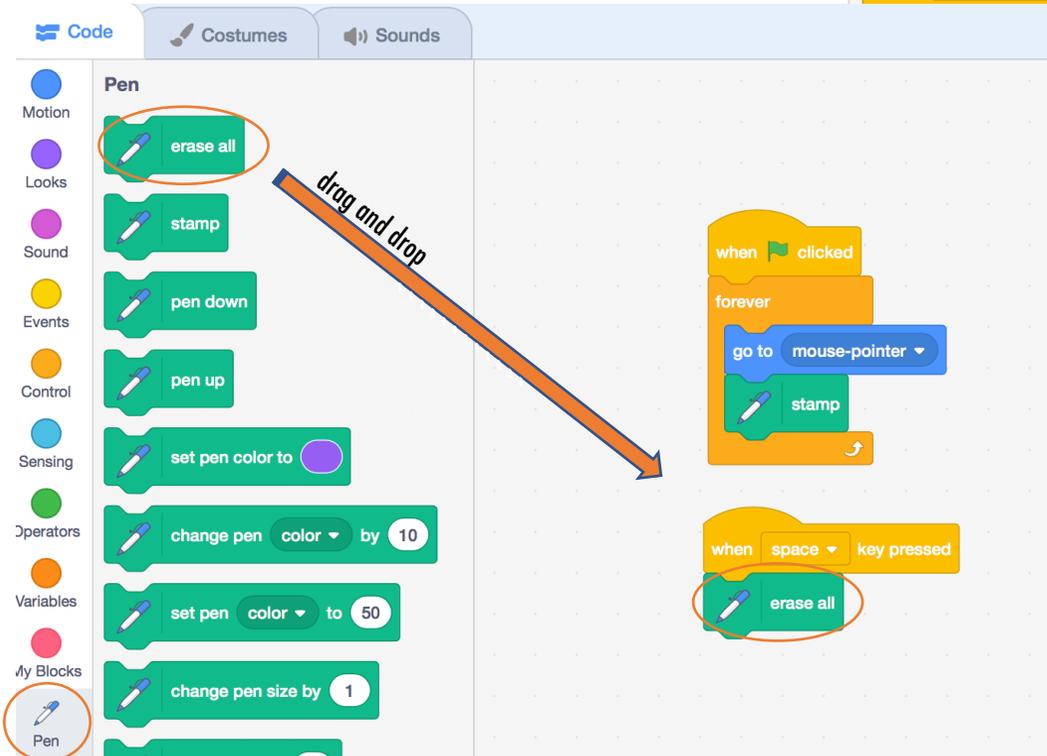
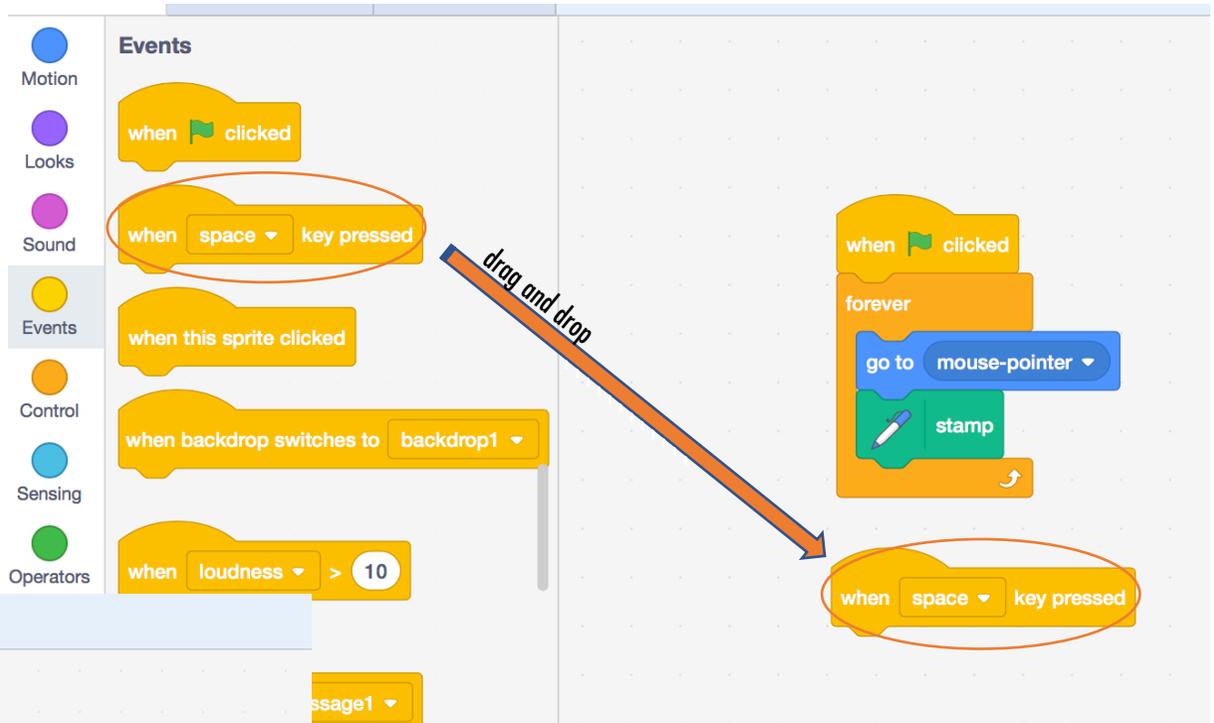
11. Press the **Green Flag** to test your program! (It should look a bit like this.)



A screenshot of the Scratch code editor. The 'Code' tab is selected, and the 'Pen' block palette is visible on the left. The 'stamp' block is circled in orange, and an orange arrow labeled 'drag and drop' points from it to a 'stamp' block in a script on the stage. The script on the stage consists of a 'when green flag clicked' block, a 'forever' loop containing a 'go to mouse-pointer' block and a 'stamp' block. The 'stamp' block in the script is also circled in orange. The 'Pen' block palette includes: 'erase all', 'stamp', 'pen down', 'pen up', 'set pen color to' (with a purple color picker), 'change pen color by 10', 'set pen color to 50', 'change pen size by 1', and 'set pen size to 1'. The 'Music' block palette is also visible at the bottom of the palette.

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12. Click on **Events** and drag and drop **When Space Key Pressed** into the **Stage** as shown.



13. Click on **Pen** and drag and drop **Erase All** into the **Stage** as shown. Now you can use **Space Bar** to clear your artwork when you are testing it.

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14. Click on **Events** and drag and drop **When Space Key Pressed** into the **Stage** as shown. Click on the drop down arrow and select **Right Arrow**.

The screenshot shows the Scratch Code editor interface. On the left sidebar, the 'Events' category is selected. A 'when right arrow key pressed' block is being dragged from the 'Events' category into the 'Stage' area. The 'change color effect by 25' block is also visible in the 'Looks' category.

The screenshot shows the Scratch 'Events' category. A 'when space key pressed' block is circled. A dropdown menu is open, showing 'right arrow' selected. An arrow points from the 'when space key pressed' block to the dropdown menu.

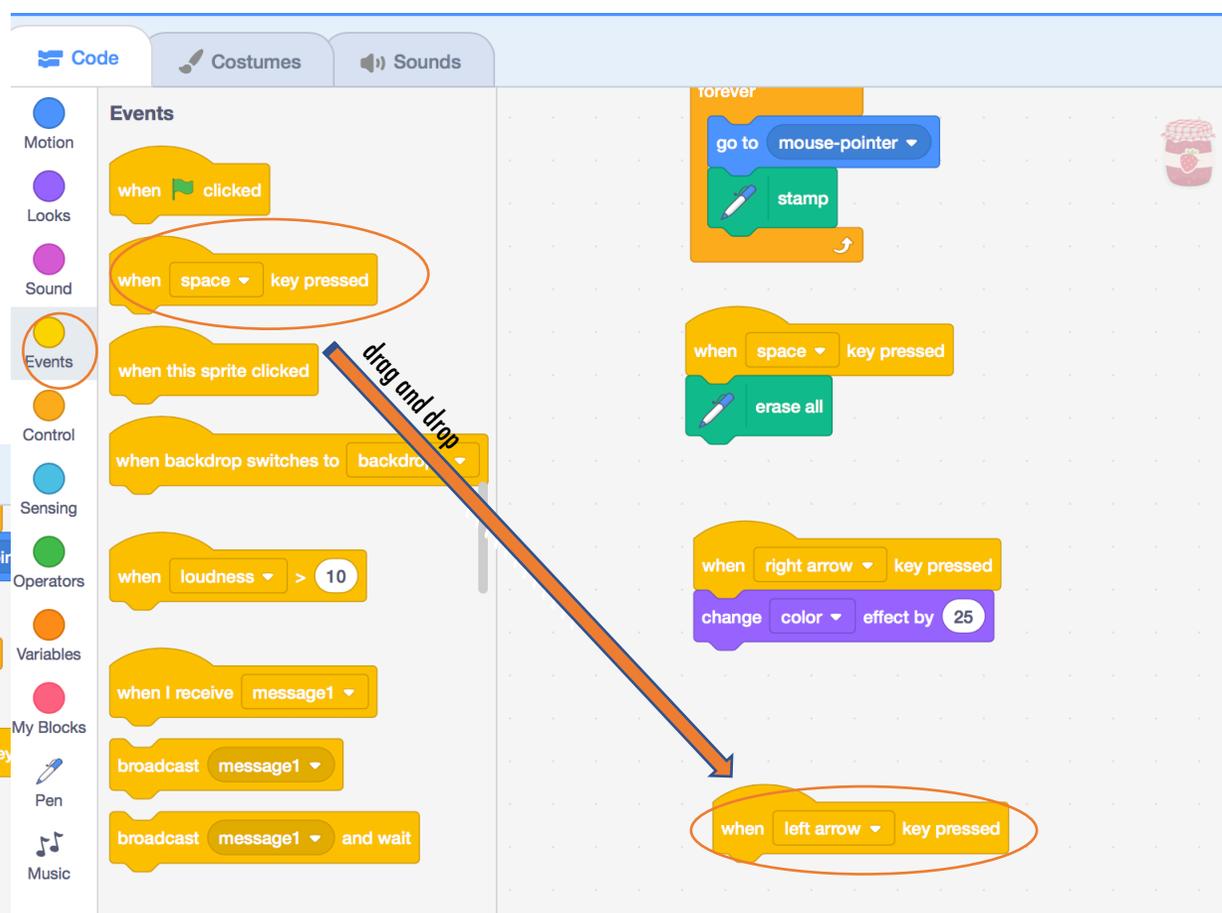
15. Click on **Looks** and drag and drop **Change Colour Effect by 25** into the **Stage** as shown.

Press the **Green Flag** to test your project. When you press the right arrow on your keyboard, the jam should change flavour!

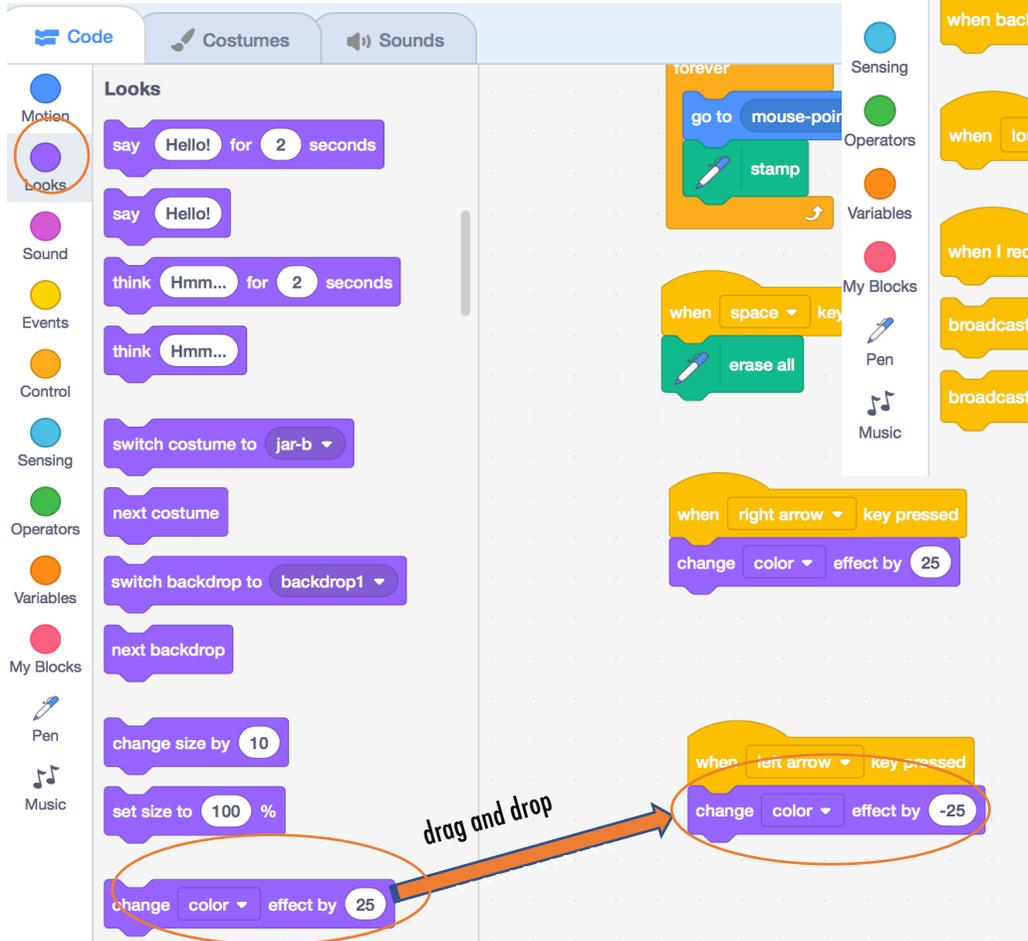


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16. Click on **Events** and drag and drop **When Space Key Pressed** into the **Stage** as shown. Click on the drop down arrow and select **Left Arrow**.



15. Click on **Looks** and drag and drop **Change Colour Effect by 25** into the **Stage** as shown. **CHANGE THE TEXT FROM 25 TO -25!**



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Congratulations - You are finished! Press the **Green Flag** and move your cursor to make jam art. Use the left and right arrow keys to change the flavours of jam. Use the space bar to clear the page. Have Fun!

