

## EAGLES - COMPUTING

### Knowledge Organiser - Autumn Term 2019

#### What is Scratch Programming?

Computing projects might include developing a simple computer game using a visual, interactive programming language such as Scratch. Scratch provides access to over 100 code blocks. These code blocks are organized into eight categories and are made available on the blocks palette.



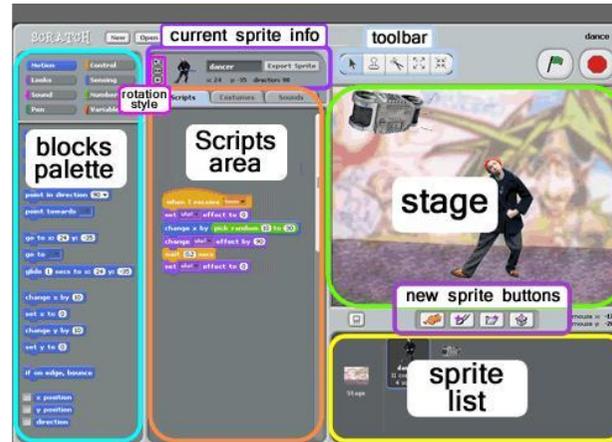
- **What do the motion blocks do?** Code blocks that control sprite placement, direction, rotation, and movement.
- **What do the looks blocks do?** Code blocks that affect sprite and background appearance and provide the ability to display text.
- **What do the sound blocks do?** Code blocks that control the playback and volume of musical notes and audio files.
- **What do the pen blocks do?** Code blocks that can be used to draw using different colours and pen sizes.
- **What do the control blocks do?** Code blocks that trigger script execution based on predefined events, repeatedly execute programming logic using loops, and perform conditional logic.
- **What do the sensing blocks do?** Code blocks that can be used to determine the location of the mouse-pointer, its distance from other sprites, and whether a sprite is touching another sprite.
- **What do the operator blocks do?** Code blocks that perform logical comparisons, rounding, and other arithmetic operations.
- **What do the variable blocks do?** Code blocks that can be used to store data used by applications when they execute.

#### How do you find the code blocks?

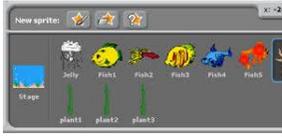
You can view the code blocks belonging to a given category by clicking on one of the eight labelled

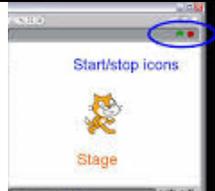
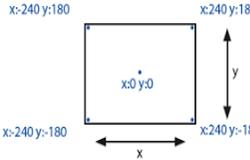
button controls at the top of the blocks palette. Note that each category of code block is colour coded, making it easy to distinguish between code blocks from different categories.

#### What does a typical Scratch interface look like?



#### What other useful terms are there?

<b>What is a sprite?</b>	An object in Scratch which performs functions controlled by scripts	
<b>What is the stage?</b>	The background of a project, performs functions through scripting	
<b>What is the Scratch Cat?</b>	Scratch's mascot and main sprite	

<b>What does the green flag do?</b>	Sometimes simply called the 'flag,' this is what starts most projects' scripts running	
<b>What are costumes used for?</b>	Images that are used to represent a sprite on the stage	
<b>What is the script?</b>	A collection of code blocks that outlines the programming logic that influences the operation of a sprite	
<b>What does the red stop sign do?</b>	The button that usually stops a project	
<b>How can you use X_Y_?</b>	The coordinates on the stage where you want the sprite to move to	
<p><b>Can you use Scratch at home?</b> Scratch is freely available and can be accessed from <a href="https://scratch.mit.edu/">https://scratch.mit.edu/</a> where you will find lots of ideas and support ... do take a look</p>		
		