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COMPUTING: PROGRAMMING-Introduction to Animation

KNOWLEDGE ORGANISER



Overview

Animations in Scratch Jr.

- Programming is when we make a set of instructions for computers to follow.
- stories and animations. It involves sprites (characters on the screen).
- -We use algorithms (a set of instructions to perform a task) to

- -Scratch Jr. is a program that we can use in order to code our own
- program the sprite to do different things.

The Basics of Scratch Jr.

- -What is Scratch Jr? Scratch is a website/ app that lets us code our own stories, games and animations.
- -Sprites: Scratch Jr. uses characters called sprites. The main sprite is a cat called Scratch.
- -Home: Clicking on the house takes you 'home' to your project screen.



Getting Started

- -The + starts a new project.
- -These are programming blocks. We drag them into the programming area
- (right). Clicking the block in the area makes the sprite perform on the stage.



- Moving Blocks: These make the Sprite move in different ways.



-Background: Backgrounds are added by clicking this icon (right).

-Start Blocks: Start blocks are yellow. These are used to start/run programs.

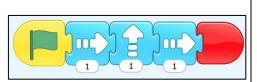
-End Blocks: End blocks are red. These show what happens at the end of your program.

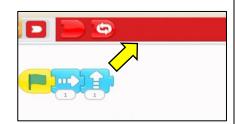




Sequencing

- -Sequences: -A sequence is a pattern or process in which one thing follows another. In Scratch Jr. we can stack blocks together side by side in order to create programs made up of sequences.
- -Deleting Blocks: Blocks can be removed from programs by dragging them from the programming area back into the blocks palette.
- -Repeating Blocks: For something to happen more than once, we can change the number underneath the block.
- -Running the Code: Run your animation by tapping the full









Debugging



Algorithms and Programming

-An algorithm is a set of instructions for performing a task. Designing an algorithm can help us to make the sprite do the things that we want it to do.

-Programming is when we move the blocks into the position (based on our algorithm design). Our programming codes the sprite to perform the actions.



Start **■*** ↑₈ End

Start =★ ↑8 End

-Sometimes, things don't work exactly how we want them to the first time. This may be a problem with our algorithm, or we could have made a mistake in our programming.



-If the animation does not work correctly the first time, remember to debug it. This means finding and fixing the problems.



Important Vocabulary