

**COMPUTING: PROGRAMMING- Introduction to Animation**

KNOWLEDGE ORGANISER

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| **Overview** |  | **Sequencing** |
| Scratch Jr. – Creating Little Coders One Cat at a Time **Animations in Scratch Jr.**- **Programming** is when we make a set of instructions for computers to follow.-**Scratch Jr.** is a program that we can use in order to code our own stories and animations. It involves sprites (characters on the screen).-We use algorithms (a set of instructions to perform a task) to program the sprite to do different things.  |  | -**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 screen icon, and then the green flag.  |
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| **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. |  |
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| **Algorithms and Programming** | **Debugging** |
|  | -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.  | -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.  |
| 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. |  |
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**Important Vocabulary**

Command Sprite Compare Programming area Block Joining Start block Run Background Delete Reset Predict Effect Change Value Instructions Design