

Brough Primary School – Curriculum Intention

Plan 2023 - 2024



Subject: Computing Year Group: Year 3/4		Area of learning: We are programmers (Rising 1.3)
Links to previous work/Remember when	This unit links to the study of character, dialogue and narrative. This unit links to designing characters and backgrounds using art and design techniques such as drawing, painting or sculpture.	
Term	Year 3/4	Key Skills to be taught
Autumn 2 2023 What the children should know at the end of this series of lessons		In this unit, the children create an animated cartoon using characters they design. They use a paint tool to create characters and backgrounds. They then create an animation by translating a storyboard into a series of scripted instructions (program) for graphic objects.

Vocabulary

design, algorithms, program, sequence, debug, create, input, output, animation, dialogue, storyboard, sprites

Sequence of learning	Learning Objectives/Outcomes	suggested Lesson Outline
1	<p>Learning Objective: To learn about animations.</p> <p>Key Knowledge: Discuss possible purposes of an animation, such as telling a joke, practising a foreign language, or presenting information on a topic they are studying. If you want the children to decide the purpose of the animation for themselves, spend some time brainstorming ideas.</p>	<p>Recap – Ask the children to think carefully about the role played by character, plot and dialogue in the animations they watch. Ask the children to think about two characters they will include in their animation.</p> <p>Ask the children to identify what makes a good animation (perhaps referring to the examples they have just seen). Use the IWB to record the suggestions made, moving these around to create clusters of similar ideas. You might like to use these as a basis for additional success criteria for the children's own animations. Finish the session by showing a particularly inspiring animation created in Scratch.</p> <p><i>Copy on brainstorm ideas.</i></p>

Brough Primary School – Curriculum Intention

Plan 2023 - 2024



2	<p>Learning Objective: To create a storyboard for their animation.</p> <p>Key Knowledge: Make the connection between the storyboard, which shows the sequence of stages in their story, and an algorithm, which is a set of steps to solve a problem or get something done, such as creating an animation for a particular story.</p>	<p>Recap – Show an example of a storyboard by searching for 'storyboard' in Google Images. Some storyboards are works of art, but they don't need to be; their main purpose is to act as a reference when creating a film or animation.</p> <p>Group the children in pairs and give them time to discuss what will happen in their animation. Prompt them to consider how easy it might be to create their animation, and suggest that it's better to start simply and then add more detail than to be too ambitious at the start. You could set a time limit for the animations, e.g. one minute. When pairs have an idea they agree on, ask them to invite feedback from another pair, providing feedback to them in return. Ask pairs to create their storyboard on paper. (There are storyboard templates on My Rising Stars.)</p> <p><i>Children's storyboard</i></p>
3	<p>Learning Objective: To create a character and background.</p> <p>Key Knowledge: Draw the children's attention to the fact that they're creating output from the computer in the form of images. If you think it is appropriate, explain that images on a computer are made up of tiny blocks called pixels.</p>	<p>Recap – Start the session by introducing Scratch, and telling the children they will be using Scratch to build their animations. Now that they have their character ideas and a storyboard, explain that they need to start by drawing their characters using the sprite editor.</p> <p>Working in their pairs, ask the children to use the sprite editor to draw two characters for their animation. Remind them to give each sprite a name. Encourage the children to reflect on the challenges of using the sprite editor. Next, ask the children to use the Scratch backdrop editor (which is very similar to the sprite editor) to create the backdrop scene for their story, and then the sprite editor to create any 'props' that may be required. Ask pairs to review each other's work and give each other feedback on how it might be improved.</p> <p><i>Photo evidence.</i></p>
4	<p>Learning Objective: To animate a character.</p> <p>Key Knowledge: Each of the steps in their storyboard</p>	<p>Recap – Project Scratch onto the IWB. Show the children how to drag and clip together different programming blocks to start building an animation script. Draw particular attention to the blocks wait (in the Control palette), glide (in the Motion</p>

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	<p>algorithm needs to be implemented as a sequence of Scratch programming blocks. For example, if their character moves in the storyboard algorithm, they'll need to use move or glide programming blocks to implement this in Scratch.</p>	<p>palette), say and think (both in the Looks palette). Ensure the children understand how to make the scripts run (by clicking the green flag).</p> <p>Invite the children to spend some time exploring Scratch before they start to script their animations. Ask questions such as 'What happens if ...?' and 'Why did it do that?' Encourage the children to use logical reasoning in their explanations, considering their own algorithms and drawing on their understanding of how Scratch works. Display the How we program poster. Discuss the steps involved in programming and the questions the children should ask themselves if they come across a problem. Give the children time to start programming their animations, referring to their storyboard algorithm created in Step 2. Encourage the children to solve any problems themselves, without much input from you.</p> <p><i>Photo evidence.</i></p>
5	<p>Learning Objective: To add sound to an animation.</p> <p>Key Knowledge: Demonstrate how to use the Sounds tab to record dialogue or sound effects using a microphone, and how to use the play sound until done block in the Sound palette under the Scripts tab to play the sound back. Note that recordings can be given names, to make it easier to remember which is which.</p>	<p>Recap – Show the children more of the Scratch code blocks and demonstrate how to use them.</p> <p>Encourage the children to continue to develop their scripts. Engage them in a discussion about ways they can improve how their scripts work, and any aspects that have not worked as anticipated. If possible, help the children to upload their animations to the Scratch community for feedback. If this is not possible, encourage the children to show their animations to parents at home, or to friends at school, and gather feedback.</p> <p><i>Photo evidence.</i></p>
6	<p>Learning Objective: To review and improve the animation.</p> <p>Key Knowledge: Project Scratch onto the IWB and ask each pair to present their animation to the class. Ask the children to</p>	<p>Recap - In their pairs, ask the children to review any feedback they have received from other people.</p> <p>Give the children the opportunity to make changes to their animations on the basis of the feedback they have received. Ask the children to evaluate the success of their work. If you establish additional success criteria for the contents of the animation, ask the children to evaluate their</p>

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	<p>explain how their programs work. Encourage the rest of the class to give constructive feedback.</p>	<p>animations against them. The children could publish their completed animations to a shared area of the school's learning platform, or the Scratch community site (subject to the school's online safety policy). Make sure the children do not put their full names on any work they share publicly; they should use first names only.</p> <p><i>Saved in folder</i></p>
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Learning Outcome/product

Correct mistakes in their animation programs. Create their own sound and graphics for the sprites and the backdrop. Explain the connection between their storyboard and the scene they're animating.

Assessment records	List only those children who have not achieved the expected outcomes.