



Computing Progression - Design and Development - Understand the activities involved in planning, creating, and evaluating computing artefacts

Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Across KS1 pupils will:	In lower KS2 pupils will:	In upper KS2 pupils will:
Say which tools were helpful and why. Know that different paint tools do different jobs. Explain that pictures can be made in lots of different ways. Spot the differences between painting on a computer and on paper. Create an algorithm for each sprite. Decide how each sprite will move and use sprites that match their design. Identify different routes around a mat. Explain what an algorithm should achieve. Plan algorithms for different parts of a task. Decide which blocks to use to meet the design. Choose backgrounds and characters for the design. Create a program based on the new design.	Create a storyboard. Review a sequence of frames to check their work. Improve their animation based on feedback. Evaluate their final film. Explain why they added other media to their animation. Make design choices for their artwork. Identify and name the objects they will need for a project. Relate a task description to a design. Compare two branching database structures. Create a branching database that reflects their plan. Choose a suitable layout for a given purpose. Identify different layouts. Match a layout to a purpose.	Decide which filming techniques they will use. Outline the scenes of their video. Evaluate their video and share their opinions. Make edits to their video and improve the final outcome. Use a design format to outline their project. Identify ways the program could be improved. Extend their program further. Draw a web page layout that suits their purpose. Evaluate what their web page looks like on different devices and suggest/make edits. Preview what their web page looks like. Evaluate the user experience of a website. Explain their design choices. Identify ways that their game could be improved.

Build sequences of blocks to match their design. Choose the images for their own design. Compare their project to their design.	Modify a program using a design. Test a program against a given design. Evaluate their project. Implement their design. Make design choices and justify them. Plan appropriate content for a podcast. Choose appropriate edits to improve their podcast. Suggest improvements to an audio recording. Review images against a given criteria. Use feedback to guide making changes. Evaluate the effectiveness of the repeated. Sequences used in their program. Develop their own design explaining what their project will do. Evaluate the use of repetition in a project. Select key parts of a given project to use in their own design.	Decide what variables to include in a project. Design the algorithm for their project. Design the program flow for their project. Create a program based on their design. Test their program against their design.
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	Evaluate the steps they followed when building their project. Refine the algorithm in their design.	
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