



# Pinner Wood School



Year Group	6	Term:	Autumn 1	Subject	Computing	Topic	Programming 3D lettering	
							Key Question	How can I create a code for 3D lettering?
Prior Learning and other Curriculum Links	Year 5 - logical reasoning, created algorithms Year 4 - simple selection and repetition of algorithms, detected errors in their programming				Skills Statements	<ul style="list-style-type: none"> <li>• I know how to decompose a design or code to focus on specific parts</li> <li>• I know how to use abstraction to hide complexity in my design or code</li> <li>• I know how to recognise and make use of patterns in my design and code</li> <li>• I know how to critically evaluate my work and suggest improvements</li> <li>• I know how to identify the need for, and work with, variables</li> <li>• I know how to create procedures to hide complexity in programs</li> </ul>		
Fundamentals	To identify and write generic codes for use across multiple projects.				Key Facts/Sticky Knowledge	<ul style="list-style-type: none"> <li>- Designs need to be decomposed to focus on specific parts</li> <li>- Abstraction is used to hide complexity in my design or code</li> <li>- Patterns can enhance my design</li> <li>- Knowledge of variables are needed to correctly code</li> </ul>		
Our Curriculum Journey	<p><b>E-safety focus:</b> Cyberbullying. The children will be understanding the similarities and difference between in person bullying and cyberbullying. Over the half term we will be discussing scenarios and the actions they can take.</p> <p><b>Journey:</b> The children are encouraged to be critical thinkers, problem solvers and computational thinkers while creating purposeful content to demonstrate how learning can be applied across the wider curriculum.</p>							

	<p>The children will deepen their knowledge of computing by applying it to solve problems and create content. This will then allow children to apply these creative ideas more regularly across the curriculum.</p> <p>D - Design: Pupils start to discuss the desired outcome for their project and are given time to tinker with the software-<b>Beetle Blocks</b>. They will have a go at using coordinates to create 3D lettering. They will then decide on a project outcome to work towards over the unit. They will then design their lettering using coordinates.</p> <p>A - Apply: Pupils are given the opportunity to create, make and produce content using Beetle Blocks. They need to remember to specify a start and end point of the lettering and ensure they 'extrude'.</p> <p>R - Refine: Pupils spend time considering ways to modify and improve their projects to get the best results possible. This will involve testing their work and change code where necessary. They may need to debug if necessary.</p> <p>E - Evaluate: Upon completing their desired outcome, pupils are given the opportunity to reflect and consider how effectively they have achieved their goal. They will do this with another group to provide constructive feedback and focus on the techniques used.</p> <p>S - Share: Learners are given the opportunity to publish and exhibit their work to the world embedding skills from the Digital Literacy curriculum. This is either on Seesaw, the school website or other platform.</p>		
<p><b>Key Vocabulary (revisited)</b></p>	<p>Data, coding, variables, resize, upload, design, algorithmic thinking, coordinates</p>	<p><b>Key Vocabulary (new)</b></p>	<p>Evaluation, effectiveness, complexity, prediction, memory, value, initialisation. Extrude, coding, debug, modify</p>