Y1 computing overview 2021-22: Technology around Us, Digital Painting, Programming Animations

Computing Activity	Building Skills and Disciplinary Knowledge	Approaches to Developing Skills and Disciplinary Knowledge	Building Substantive Knowledge and Understanding	Approaches to Developing Substantive Knowledge and Understanding	Curricula Materials	Assessed through (T1 T2 T3) Exploring Responding Designing Creating Evaluating		
Algorithms and Programs	• Use sequence in programs • Work with various forms of input and output • Use logical reasoning to predict behaviour of simple programs • Use sequence in programs	• Class/group tuition with technical guidance from the Switched On computing program	• Understand technology and how it can help them in their everyday lives • Develop understanding of the different components of a computer by developing their keyboard and mouse skills. • Develop understanding of how to use technology responsibly. • Pupils develop their understanding of a range of tools used for digital painting and use their own digital paintings. • Understanding how to approach an algorithm through problem solving	• Class teacher showing children existing examples • Group work on creating and developing their own work	**TERM1:** **Technology around Us** • Through investigation, understand the different functions of a device • Locate different forms of technology and explain how they help us • Create and save files • Identify computing rules and understand how they keep us safe	Most children will be able to… (working at)	Some children will not yet be able to…(working towards)	Some children are confidently able to… (exceeding)
Databases	• Use internet services to create content that presents information • Use internet services to create and evaluate content that presents information • Design, create, organise, store, manipulate and retrieve digital content	• Class/group tuition with reference to existing databases						
Using the internet	• Use search technologies effectively • Be discerning in evaluating digital content • recognise common uses of information technology beyond	• Class/group internet browsing, followed by reflective discussion		• Class teacher talk through programs and algorithms with opportunities to try different programs • Observing algorithms and debugging them	**TERM2:** **Digital Painting** • Use Google Drawing or Paintz.app to create drawings using line, shape and colour tools effectively • Recreating chosen works of Piet Mondrian and Henri Matisse using above applications • Save images of known artists to recreate • Choose appropriate tools to recreate drawings			
Problem solving	• Solve problems by decomposing them into smaller parts • Design programs that accomplish specific goals • Write programs that accomplish specific goals • Debug programs that accomplish specific goals • Use logical reasoning to detect and correct errors in algorithms and programs	• Class, then group opportunities for problem solving						
Communicating	• Understand the opportunities networks offer for communication and collaboration • Use a variety of software (including internet services) to present information	• Observational opportunities to work as part of a group		• Teacher led creating and editing • Observing pre-existing master pieces and masters in the field	**TERM3:** **Programming Animations** • Using Scratch Jr, choose commands to give a purpose and use them to move a sprite • Join commands together to run a series of algorithms • Develop and record sequences of instructions as an algorithm to create their own program			
SMSC	• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour • To know how to seek help – where to go, and how to set privacy settings • Recognise acceptable/ unacceptable behaviour • Knowing how to find out about website or game policies	• Teacher guidance on safe internet use and introduction to supportive websites (NSPCC)						