Year / Topic	Term	National Curriculum Links	Length of Topic
6.6 App Development	Summer 2	CS2.1, CS2.3,	7 Weeks

Resources	Key Classroom ICT Activity
Resources App Inventor PowerPoint **Target Skills** Teamwork Design skills Communication Programming **Curriculum Links** English – Speaking and Listening. DT – design and making. SMSC – discussing design and inclusion. Maths – logical thinking and decomposition of problems. **E-Safety Coverage** Students will consider the capabilities of technology and how this can be used purposely. They will think carefully about copyright and used online tools safely and effectively.	**Key Classroom ICT Activity** In this unit students will plan and design a mobile phone app. They will then write algorithms and use a programming toolkit to program, debug and refine the code for their own working app. By the end of the topic students will be able to: • Develop an awareness of the capabilities of smartphones and tablets. • Identify interesting, solvable problems. • Scope a project to identify different components that must be successfully combined. • Become familiar with another programming toolkit and development program. • Write algorithms for their app. • Thoroughly test and evaluate their app. **Assessment - Progression Pathways** All children should – *IT, Recognises different types of data: text, number. Appreciates that programs can work with different types of data and that data can be structured in tables to make it useful.* *CS, Understands that algorithms are implemented on digital devices as programs. Designs simple algorithms such as loops. Uses arithmetic operators, if statements, and loops within programs,* Most children should – *IT, Understands the difference between data and information. Shows an awareness of, and can use a range of internet services.* Some children should - *IT, Recognises the audience when designing and creating digital content Understands the difference between, and appropriately uses if and if then else statements.* *DL, Recognises ethical issues surrounding the application of information technology beyond school.*

Assessment Criteria	6.6 App Development
Emerging	✓ I can identify the tasks that need to be completed for the various aspects of the project. ✓ I can sketch ideas for the design of our app. ✓ I can develop clearly written algorithms for our app.
Developing	✓ I can understand that a smartphone is a programmable computer. ✓ I can create original content for use in our app. ✓ I can identify the tools and resources needed to complete this project. ✓ I can think through the elements of interaction design for our app. ✓ I can implement algorithms as code.
Secure	✓ I can describe the input and output capabilities of a smartphone. ✓ I can source external content for use in my app. ✓ I can explain how the different elements of our app will function.
Mastered	✓ I can incorporate media effectively in my presentation. ✓ I can find ways to optimise the sequence of tasks and their allocation. ✓ I can use logical reasoning to detect and correct errors in our app.