Coleman Primary School

Key Knowledge Organiser: ***Year 5- Summer 2***

Computing: WE ARE VR DESIGNERS

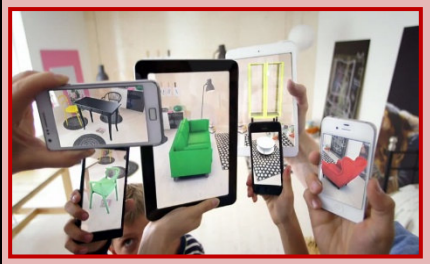
In this unit, pupils use Google Street View and CoSpaces to explore and create **virtual reality (VR)** and **augmented reality (AR)** content of their own. In:

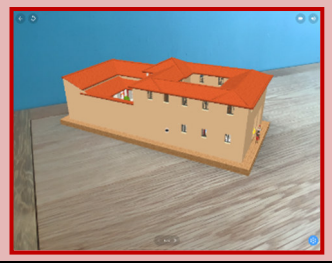
- **Session 1** they explore familiar and unfamiliar locations in VR using Google Street View
- **Session 2** they create a 360° photo and import it to Google Maps
- **Session 3** they record book reviews, and link them to books using **QR** codes
- **Session 4** they are introduced to CoSpaces
- **Session 5** they create a scene in CoSpaces
- **Session 6** they write a program to control a VR or AR object in CoSpaces.

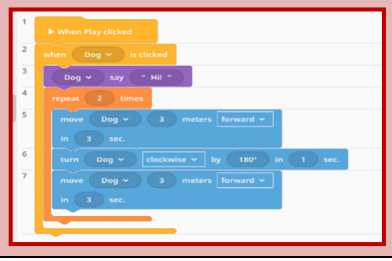
Key Vocabulary

Accelerometer	hardware component providing data on changes in motion, typically in three directions
Augmented reality (AR)	digital layer superimposed on a view of the real world
Global positioning system (GPS)	this system allows a user to determine their exact location using a network of satellites
Google Cardboard	low-cost VR headset, typically made from cardboard and plastic lenses, which repurposes a smartphone as a VR display
Photosphere	spherical collection of photographs so that the image displayed matches the direction viewed
QR Code	2-D array of light and dark squares used to encode text in a way that can be read using a smartphone or tablet camera
Share Code	CoSpaces shortcut to allow those with the software to view a scene created by another user
Stereographic:	a pair of slightly different images created with a slight offset, and shown to left and right eyes to create the illusion of depth
Virtual reality (VR)	simulated, immersive 3-D representation of a real or imagined scene

Images:







Key skills learnt prior to this unit	Key skills learnt in this unit
Year one • understand algorithms as sequences of instructions and how algorithms are implemented as programs on digital devices • create and debug simple programs • use reasoning to predict the behaviour of simple programs. Year two • understand what algorithms are; how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs. Year three • design, write and debug programs • use sequence in programs; work with various forms of output • begin to use reasoning to explain how some simple algorithms work and to detect errors in programs • begin to understand computer networks including the internet and how they can provide multiple services, such as the World Wide Web Year four • design, write and debug programs that accomplish specific goals • use sequence and repetition in programs; work with inputs and outputs • use reasoning to explain how some simple algorithms work and to detect and correct errors in programs • begin to understand computer networks including the internet and how they can provide multiple services, such as the World Wide Web	• explore real-world and imagined locations in **VR** • create 360° **photosphere** images • link physical objects to digital content using **QR** codes • create their own VR scene • program objects and interactions in VR. **Progression** This unit builds on the 3-D modelling work that pupils encountered using SketchUp in the topic **"We are Architects" in Spring 1**