



Unit/Term	Focus	Hardware /Software	Computing POS focus	Cross Curricular link
5.1 We are game developers	Developing an interactive game	Laptops/desktops/Chromebooks Scratch Microphones (optional) Snap! Kodu	Computer Science: Coding	Geography – Scarborough/ Coasts – possible sea/beach themed game.
5.2 We are cryptographers	Cracking codes	Laptops/desktops/Chromebooks iPads or Android tablets Scratch Snap!	Computer Science: Computational Thinking	n/a
5.3 We are architects	Creating a virtual space	Laptops/desktops/Chromebooks iPads or Android tablets Trimble SketchUp Screen recorder CoSpaces Minecraft Education	Information Technology: Media	History – Battle of Britain – Create an Anderson Shelter
5.4 We are web developers	Making sense of the Internet and building a website	Laptops/desktops/Chromebooks iPads or Android tablets Google Chrome Google Sites	Digital Literacy: Online safety	PSHE – Online Safety
5.5 We are adventure gamers	Creating an interactive adventure using presentation software	Laptops/desktops/Chromebooks Google Slides Voice recorder iPads Microsoft PowerPoint	Information Technology: Media	Geography – Rainforests – theme for the game or English – Varjak Paw theme – Cats escape to the city
5.6 We are VR	Experimenting with virtual and augmented reality	designers iPads or Android smartphones Google Cardboard Google Street View GarageBand CoSpaces N/A	Information Technology: Media	History- Vikings



Curriculum Area: Computing – Autumn HT1 - 5.1 We are game designers			
<p>Knowledge, skills and concepts In this unit, pupils will learn to:</p> <ul style="list-style-type: none"> ● create original artwork and sound for a game ● design and create a computer program for a computer game, which uses sequence, selection, repetition and variables ● detect and correct errors in their games ● use iterative development techniques. <p>Progression In Key Stage 1:</p> <ul style="list-style-type: none"> ● In Unit 1.1: We are treasure hunters pupils programmed physical objects. ● In Unit 1.5: We are rhythmic and Unit 2.1: We are astronauts pupils programmed in Scratch Jr. ● In Unit 2.2: We are games testers pupils were introduced to some Scratch games. <p>In Key Stage 2:</p> <ul style="list-style-type: none"> ● Pupils developed their Scratch programming skills in Unit 3.1: We are programmers and Unit 4.1: We are software developers. ● They will develop their Scratch programming and problem solving in Unit 6.2: We are computational thinkers. 			
Pupils will learn	Skills/Implementation	Vocabulary Children Will Learn	Assessment (Impact) - By the end of this Unit:
Session 1 Pupils analyse games and plan their own	<ul style="list-style-type: none"> ● Pupils look at the 4 different example games in scratch – can they decompose them to work out the algorithm used ● Pupils decide on their own seaside themed game and begin to plan 	<ul style="list-style-type: none"> ● Algorithm ● Background ● Bug ● Debug ● Iterative development ● Logical reasoning ● Program ● Scratch ● Sprite ● Forever ● If ● Variable ● Respawn 	<p>All pupils can:</p> <ul style="list-style-type: none"> ● create an algorithm for a game ● create images and sounds for their games ● use sequences of instructions ● detect errors in their game. <p>Most pupils can:</p> <ul style="list-style-type: none"> ● create music for use in their game ● use selection and repetition in their game ● correct errors in their game ● improve their game on the basis of feedback
Session 2 Pupils create and source assets	<ul style="list-style-type: none"> ● Pupils create sprites/ backdrops and begin to record any required sounds for their game. 		
Session 3 Pupils create a prototype of a Scratch game	<ul style="list-style-type: none"> ● Pupils decide how their sprites will be controlled e.g. arrow keys for a maze game 		



	<ul style="list-style-type: none"> Investigate how the if / else/ sensing blocks change the sprite's interaction with the background/ colours / other sprites 		<ul style="list-style-type: none"> add instructions to their game. <p>Some pupils can:</p> <ul style="list-style-type: none"> break their game into its component parts and develop them separately
<p>Session 4 Pupils debug the game script</p>	<ul style="list-style-type: none"> Show chn some of their peers' problems from last week including – how can we debug ? Look again at algorithms -do they need adjusting? Assign debugging partners to solve issues 		<ul style="list-style-type: none"> create multiple images for characters and use them for animation use variables in their game explain how their game works include comments in the code for their game.
<p>Session 5 Pupils test and improve their game</p>	<ul style="list-style-type: none"> Pupils test their games and make targets for improvements Add in instructions/ splash screens to improve Pupils add a new level with broadcast function or timer/ score penalties 		
<p>Session 6 Pupils write game instructions and publish their games.</p>	<ul style="list-style-type: none"> Continue game improvements with increased difficulty Publish games and evaluate 		



Curriculum Area: Computing – Autumn HT 2 - 5.2 We are Cryptographers

Knowledge, skills and concepts

In this unit, pupils will learn to:

- be familiar with semaphore and Morse code
- understand the need for private information to be encrypted
- encrypt and decrypt messages in simple ciphers
- appreciate the need to use complex passwords and to keep them secure
- have some understanding of how encryption works on the Internet.

Progression

In Key Stage 1: ● In Unit 1.5: We are rhythmic and Unit 2.1: We are astronauts pupils programmed in ScratchJr.

● In Unit 2.2: We are games testers pupils accessed and explored Scratch.

In Key Stage 2: ● In Unit 3.1: We are programmers pupils created Scratch animations.

● In Unit 3.2: We are bug fixers they learned techniques for debugging programs.

● In Unit 4.1: We are software developers and Unit 5.1: We are game developers they developed games in Scratch.

● In Unit 5.4: We are web developers they learn more on how the Internet makes communication possible and the applications of cryptography.

● In Unit 6.2: We are computational thinkers they will learn standard algorithms of computer science and maths.

Pupils will learn	Skills/Implementation	Vocabulary Children Will Learn	Assessment (Impact) - By the end of this Unit:
Session 1 Pupils are introduced to semaphore and communicate information using it	<ul style="list-style-type: none"> ● Pupils use semaphore flags and explanation sheet to signal the alphabet, their name etc ● Pupils crack codes written in semaphore ● Pupils are challenged to write down their own message in code using the semaphore flags 	<ul style="list-style-type: none"> ● Cipher: an agreed scheme (algorithm) for encrypting or decrypting a message Codes: ways of changing the way information is represented Cryptanalysis: the process of decrypting an encrypted message 	All pupils can: <ul style="list-style-type: none"> ● send and receive messages using Morse and semaphore ● encrypt and decrypt messages using the Caesar and substitution ciphers ● recognise the importance of keeping passwords entirely secret
Session 2 Pupils are introduced to Morse code and communicate information using it	<ul style="list-style-type: none"> ● Pupils learn what Morse Code is and what it was used for ● Pupils crack codes and compare it to Semaphore 		



	<ul style="list-style-type: none"> • Use www.boyslife.org/games/online-games/575/morse-code-machine • To write their own messages 	<p>without prior access to the encryption key</p>	<ul style="list-style-type: none"> • recognise the need for encryption when using the Internet.
<p>Session 3 Pupils learn about ciphers and the Caesar cipher to crack codes</p>	<ul style="list-style-type: none"> • Pupils learn what a Caesar Cypher is and practise using it to crack various codes. • Discuss data encryption – passwords etc why are these needed in every day life • Pupils the Encrypt script on Scratch to make each password more secure 	<ul style="list-style-type: none"> • Cryptography: the science of keeping communication and information secret Decrypt: to convert an encrypted message into readable text • Encode: to change the form of a message into an agreed code • Encrypt: to convert a readable message into an encrypted form so that it cannot be read by those without the key • Message: information to be transmitted from one person (or system) to another • Morse code: a simple code for converting letters and numbers into patterns of short and long electrical pulses • Semaphore: a simple code for converting letters and numbers into different positions of two flags, one held in each hand • Transmit: to communicate a message over a long distance 	<ul style="list-style-type: none"> • Most pupils can: <ul style="list-style-type: none"> • send and receive messages using Morse and semaphore beyond line-of-sight • decrypt messages using the Caesar cipher with an unknown key • recognise the importance of using complex passwords • understand how to check if a web page is encrypted. • Some pupils can: <ul style="list-style-type: none"> • compare and contrast Morse and semaphore with the Internet • explain the algorithm for the Caesar cipher • decrypt messages using a general substitution cipher with an unknown key using frequency analysis • understand what constitutes a complex password • understand how to check the security certificates for a web page.



<p>Session 4 Pupils learn how to use frequency analysis, common words and substitution ciphers to crack codes</p>	<ul style="list-style-type: none"> • Develop knowledge from previous session of cipher using • www.simonsingh.net • /The_Black_Chamber/monoalphabetic.html • Pupils can explain the changes with mixed up alphabet/ symbols and characters 	<div style="border: 1px solid black; height: 500px;"></div>
<p>Session 5 Pupils learn about the importance of password security</p>	<ul style="list-style-type: none"> • Pupils learn about the importance of strong passwords – how do we make them strong? • Pupils investigate the password-guessing script in scratch.mit.edu/projects/414351579/, starting with three-, then four- and finally five-letter passwords, noting how much longer the script takes to find their password as the length goes up 	
<p>Session 6 Pupils learn about encrypted websites and evaluate the unit of work.</p>	<ul style="list-style-type: none"> • Pupils learn about upils the difference between how http:// and https:// which are shown in their web browser. HTTPS stands for Hypertext Transfer Protocol Secure. This means any data is encrypted when being transferred over a secure connection. HTTP is unsecured; HTTPS sites need to have a security certificate 	



Curriculum Area: Computing – Spring 1 - HT 3 - 5.3 We are architects

Knowledge, skills and concepts

In this unit, pupils will learn to:

- understand the work of architects, designers and engineers working in 3-D
- develop familiarity with a simple CAD tool ● develop spatial awareness by exploring and experimenting with a 3-D virtual environment
- develop greater aesthetic awareness.

Progression

In Key Stage 1: ● In Unit 1.3: We are digital artists pupils created digital art.

● In Unit 2.3: We are photographers pupils edited photographs.

In Key Stage 2: ● In Unit 3.3: We are presenters pupils recorded and edited a performance using green screen.

● In Unit 4.5: We are artists they created geometric art. ● In Unit 5.6: We are VR designers they return to working on 3-D content.

Pupils will learn	Skills/Implementation	Vocabulary Children Will Learn	Assessment (Impact) - By the end of this Unit:
Session 1 Pupils explore existing Anderson Shelter, before sketching ideas for their own	<ul style="list-style-type: none"> ● Pupils search the internet using safe search to research what Anderson Shelters were like ● Pupils find out dimensions/ materials/ decorations/ which type 	<ul style="list-style-type: none"> ● Computer-aided design (CAD): using computer software to help design real-world artefacts, from engineering components to buildings 	All pupils can: <ul style="list-style-type: none"> ● use the web to explore virtual art galleries ● create simple objects using SketchUp ● create a simple gallery space in SketchUp ● add furniture to their gallery in SketchUp ● add their artwork to the gallery ● create an animated walkthrough of their gallery. Most pupils can: <ul style="list-style-type: none"> ● identify common characteristics of art galleries using the web
Session 2 Pupils build their Anderson Shelter	<ul style="list-style-type: none"> ● Pupils use Google Sketchup to explore the interface to SketchUp and then ask them to explore the interface for themselves. Encourage them to share what they discover with one another ● Pupils create a base and the shell for the shelter using extraction/Arc/ stretch tools 	<ul style="list-style-type: none"> ● Creative Commons: copyright licensing scheme where the creator of an original work allows others to use it without seeking further permission ● Photorealistic: an image indistinguishable (or nearly indistinguishable) from a digital photograph 	



<p>Session 3 + 4 Pupils create furniture and fixtures for their Anderson Shelter</p>	<ul style="list-style-type: none"> • Pupils explore gallery tools and material tools to create a full indoor/ outdoor for the shelter 	<ul style="list-style-type: none"> • Render: to create a 2-D image from a 3-D virtual scene 	<ul style="list-style-type: none"> • create complex, compound objects using SketchUp • apply appropriate finishes to surfaces in SketchUp • create a narrated walkthrough of their gallery. <p>Some pupils can:</p> <ul style="list-style-type: none"> • create aesthetically pleasing complex objects using SketchUp • create a complex collection of interlinked rooms in SketchUp <ul style="list-style-type: none"> • create furniture for their gallery • edit the walkthrough of their gallery in a video editor
<p>Session 5 Pupils plan the commentary for their virtual tour</p>	<ul style="list-style-type: none"> • • Pupils look at existing 3d tours online of art galleries/ new homes and make a plan for a commentary for theirs. • Plan out using storyboard 		
<p>Session 6 Pupils create a virtual tour of their gallery</p>	<ul style="list-style-type: none"> • Using sketchup recorder Ask pupils to create different views of their gallery, adding these as scenes within a SketchUp animation alongside their commentary. • Evaluate and critique in pairs. 		



Curriculum Area: Computing – Spring 1 - HT 4 - 5.4 We are Web Developers

Knowledge, skills and concepts

In this unit, pupils will learn:

- the name and function of components making up the school’s network
- how information is passed between the components that make up the Internet
- what the source code for a web page looks like and how it can be edited
- how a website can be structured ● how to add content to a web page.

Progression

In Key Stage 1: ● In Unit 1.4: We are publishers pupils produced an eBook.

● In Unit 2.4: We are researchers pupils learned to access online content.

In Key Stage 2: ● Pupils created online text in Unit 3.5: We are co-authors.

● They created content for the Internet in Unit 4.4: We are bloggers.

● In Unit 5.2: We are cryptographers, pupils learned ways that information can be protected when transmitted.

● Pupils will return to collaboratively planning in Unit 6.3: We are publishers.

● They will revisit online safety in Unit 6.4: We are connected

Pupils will learn	Skills/Implementation	Vocabulary Children Will Learn	Assessment (Impact) - By the end of this Unit:
Session 1 Pupils learn about the school network and how it connects to the Internet	<ul style="list-style-type: none"> ● Pupils draw picture that represents the internet to them. ● Explain to pupils what a network is and show them the schools network with server cupboard/ network switch ● Pupils explain how the system works including which drives they have access/ permissions to and which are forbidden ● Pupils photograph the hardware components and add to together as a diagram 	Creative Commons: copyright licensing scheme where the creator of an original work allows others to use it without seeking further permission, subject to a number of agreed conditions Hyperlinks: text or images that, when clicked, opens another page or	All pupils can: <ul style="list-style-type: none"> ● name hardware used in connecting computers ● appreciate the route taken by packets of data across the Internet ● understand the difference between the web and the Internet ● understand that web pages are written and transmitted in HTML ● view the HTML for a web page ● create web pages.



<p>Session 2 Pupils learn how messages are passed on the Internet</p>	<ul style="list-style-type: none"> • Give pupils numbered IP address cards to match their table number <p>Pupils are represent computers. • Each table represents a small network. • The whole class represents the Internet</p> <p>Children carry out drama passing messages through the switch to understand how the network functions.</p>	<p>moves to another part of the document</p> <p>Hypertext mark-up language (HTML): predominant language for web pages</p> <p>Hypertext transfer protocol (HTTP): standard protocol for the request and transmission of HTML web pages between browser and web server</p> <p>Internet: global network connecting computers and local networks using automated switches, routers and fibre optic, copper wire and radio connections</p>	<p>Most pupils can:</p> <ul style="list-style-type: none"> • describe the function of the different hardware used to connect computers together • describe how data is transmitted via the Internet • explain the parts of a URL • recognise the importance of links for the web • edit the HTML for a web page • create a web page that includes images.
<p>Session 3 Pupils learn how web pages are built of HTML</p>	<ul style="list-style-type: none"> • Pupils learn what html is and try to work out what each part means • Pupils learn what http means • Pupils have a go at 'hacking' the Prototype web page editing the information about the historical event 	<p>Internet Protocol (IP) addresses: numeric addresses uniquely specifying computers directly connected to the Internet Network</p> <p>switch: dedicated computer hardware that routes data packets to particular connections according to their IP address header</p> <p>Packets of data: a small set of numbers that get transmitted together via the Internet, typically enough for 1000 or 1500 characters</p> <p>Protocol: a set of agreed rules and procedures for communication</p>	<p>Some pupils can:</p> <ul style="list-style-type: none"> • discuss the hardware involved in connecting a computer to a web server in another country • show some understanding of HTTP • plan the structure of a site • make constructive changes to another's page



		<p>Tag: component of HTML to show the purpose of the following text, such as a link, paragraph text or image</p> <p>Uniform Resource Locator (URL): a standard for specifying the location on the Internet of certain data files</p> <p>Web browser: program running on a user’s computer which requests and displays web pages using HTTP</p> <p>Web server: computer connected to the Internet that stores web pages, transmitting these to web browsers as HTTP requests are received</p> <p>World Wide Web: the HTML and other documents stored on individual web servers connected via the Internet and accessible via HTTP</p>	
<p>Session 4 Pupils plan an online safety website +</p> <p>Session 5 Pupils write pages for their site</p>	<ul style="list-style-type: none"> • Pupils use Google Sites to create a web page for parents and pupils about the dangers of SMART phones – They plan and include information suitable for both to stay safe 		
<p>Session 6 Pupils add links and media to their site.</p>	<ul style="list-style-type: none"> • Pupils add in links to news stories e.g. Brek Bednar and videos from newsround site 		



Curriculum Area: Computing – Summer 1 - HT 5 - 5.5 We are adventure gamers

In this unit, pupils will learn:

- how to plan a non-linear presentation
- to create text as part of a presentation
- to add and edit images in a presentation
- to use hyperlinks for navigation between the slides of a presentation
- to record and add audio narration to a presentation
- to use commenting tools to give feedback on a presentation.

Progression In Key Stage 1:

- Pupils used presentation software in Unit 2.4: We are safe researchers.

In Key Stage 2:

- Pupils developed use of presentation software in Unit 3.3: We are presenters.
- They experienced audio recording in Unit 3.4: We are who we are and Unit 4.3: We are musicians.
- Pupils can continue to develop ideas for hyperlinked games in virtual reality in Unit 5.6: We are VR designers.

Pupils will learn	Skills/Implementation	Vocabulary Children Will Learn	Assessment (Impact) - By the end of this Unit:
Session 1 Pupils plan an interactive adventure game	<ul style="list-style-type: none"> ● Pupils explore text based adventure game Colossal Cave and the interactive presentation ● Pupils use the ideas from this to begin to different locations or situations for their game. ● Pupils show how these locations can be connected to show the different choices that 	<p>Abstraction: a process of managing complexity by setting to the side irrelevant detail and concentrating on function rather than form</p> <p>Colour value: the amount of red, green and blue light present in a pixel, each on a scale from 0 to 255</p>	<p>All pupils can:</p> <ul style="list-style-type: none"> ● plan an adventure with a number of locations or situations ● add text to a presentation ● add images to a presentation ● create a link between slides in a presentation ● record audio narration



	<p>the player will make in the game.</p> <ul style="list-style-type: none"> • Pupils use the idea of abstraction to make their game link 	<p>Creative Commons: copyright licensing scheme which permits some re-use of content without additional permission, subject to specified conditions</p>	<ul style="list-style-type: none"> • provide feedback on others' presentations.
<p>Session 2 Pupils write descriptions for their game</p>	<ul style="list-style-type: none"> • Pupils discuss what would make good descriptive writing for the locations or situations that players will encounter in their adventure games. • Pupils add a new blank slide to their game • Pupils work collaboratively in pairs to create a setting 	<p>Hyperlink: text or images that, when clicked, opens another page or moves to another part of the document</p> <p>MP3: compressed audio format, making it easy to store and transmit near-CD quality audio files</p>	<p>Most pupils can:</p> <ul style="list-style-type: none"> • create a slide showing an outline plan of their adventure game • add descriptive text to a presentation • add well-chosen Creative Commons licensed images to a presentation • create links between the slides in a presentation • attach audio narration to presentation slides
<p>Session 3 Pupils source images for their game</p>	<ul style="list-style-type: none"> • Pupils use their descriptive settings from last session to find Creative Commons licensed images. They could use the 'speaker notes' section of the presentation to record the original creator of the image. • Remind pupils what they should do if they encounter inappropriate content when searching for images 	<p>Pixel: picture element – one of the small squares that makes up a digital image</p> <p>Safe search: automatic filtering of search results to remove most, if not all, adult and other inappropriate content</p>	<p>Some pupils can:</p> <ul style="list-style-type: none"> • link locations on a plan to individual slides • use proofreading tools to correct mistakes in text on presentations slides • acknowledge the source of images used • use a range of devices (such as text links, buttons and hidden hotspots) to link slides in a presentation
<p>Session 4 Pupils create links between slides</p>	<ul style="list-style-type: none"> • Pupils record audio versions of their descriptions for each slide. The online voice recorder has very limited editing, so if pupils are not happy with their recording they should simply re-record an improved version. 		<ul style="list-style-type: none"> • add sound effects or music to presentation slides • use agreed criteria to provide feedback on a presentation.



<p>Session 5 Pupils add audio narration to their game</p> <p>Session 6 Pupils test one another's games and give feedback</p>	<ul style="list-style-type: none">• Give pupils time to review their game, making sure that all the links work as they should and checking through for any spelling or other mistakes in the text.• Pupils add an introduction slide to their game, which sets the scene		
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Curriculum Area: Computing – Summer 2 - HT 6 - 5.6 We are VR Designers

Knowledge, skills and concepts

In this unit, pupils will learn to:

- 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 Unit 5.3: We are architects.
- Pupils also make use of their audio recording and editing skills from Unit 4.3: We are musicians.

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
Pupils will learn	Skills/Implementation	Vocabulary Children Will Learn	Assessment (Impact) - By the end of this Unit:	
Session 1 Pupils explore familiar and unfamiliar locations in VR using Google Street View.	<ul style="list-style-type: none"> Pupils explore virtual reality (VR) and augmented reality (AR) programs. Ask pupils if they have used VR or AR before and what their experience of them are? Pupils use ipads and google street view to navigate a route Can pupils do the same for York Station to Jorvik centre on the upcoming trip? What are the advantages of VR? 	<p>Accelerometer: hardware component providing data on changes in motion, typically in three directions</p> <p>Augmented reality (AR): digital layer superimposed on a view of the real world</p> <p>Global positioning system (GPS): this system allows a user to determine their exact location using a network of satellites</p>	<p>All pupils can:</p> <ul style="list-style-type: none"> explore a familiar location in Street View take photographs on location record a review of a book explore a scene in CoSpaces place objects in a CoSpaces scene program an object to move in CoSpaces. <p>Most pupils can:</p> <ul style="list-style-type: none"> explore an unfamiliar location in Street View create a 360° photosphere on location upload an audio file to a webserver or cloud storage interact with objects in CoSpaces create a CoSpaces scene using an environment and several objects program CoSpaces objects to respond when clicked. <p>Some pupils can:</p>	
Session 2 Pupils create a 360° photo and import it to Google Maps	<ul style="list-style-type: none"> Show pupils how Google creates Street View images using 360° cameras mounted on cars, tricycles and backpacks Discuss whether this is ok? Consent? 	<p>Google Cardboard: low-cost VR headset, typically made from cardboard and plastic lenses, which repurposes a smartphone as a VR display</p>		
Session 3 Pupils record book reviews, and link them to books using QR codes	<ul style="list-style-type: none"> Pupils use ipads to take 360 photos around school – Use the editing app to blur out faces/ number plates 	<p>Photosphere: spherical collection of photographs so that the image</p>		



	<ul style="list-style-type: none"> • Pupils explain how Google automatically locates the new photosphere at the place where it was taken. 	<p>displayed matches the direction viewed</p> <p>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</p> <p>Share Code: CoSpaces shortcut to allow those with the software to view a scene created by another user</p> <p>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</p> <p>Virtual reality (VR): simulated, immersive 3-D representation of a real or imagined scene</p>	<ul style="list-style-type: none"> • navigate between two locations in Street View • show respect for privacy by blurring some content in a photosphere • create a QR code for audio content and attach it to a physical object • solve puzzles in CoSpaces • import images or 3-D objects to CoSpaces • program a question or choice in CoSpaces
<p>Session 3 Pupils record book reviews, and link them to books using QR codes</p>	<ul style="list-style-type: none"> • Pupils learn that augmented reality (AR) adds a digital layer to things or places in the real world. • Search for animals in google and find 3d view. Using the ipads children should be able to augment the animal in class. • Upload a class recording to google drive then pupils copy 		



	<p>the URL and create a QR code using the QR code generator - can we attach an audio review to a book in class?</p>	
<p>Session 4 Pupils are introduced to CoSpaces</p>	<ul style="list-style-type: none"> • Pupils use coSpaces app to view a Viking House and explore it • Pupils compare the VR and Ar modes • Then plan a scene they will create in VR 	
<p>Session 5 Pupils create a scene in CoSpaces</p>	<ul style="list-style-type: none"> • Pupils use Cospaces to create a scene based on a Viking Village • Share the qr code with partners to review 	
<p>Session 6 Pupils write a program to control a VR or AR object in CoSpaces</p>	<ul style="list-style-type: none"> • Pupils explore coSPACES , block-based programming language called CoBlocks, like Scratch. • Pupils write algorithm and bring their scene to life with two Vikings having a conversation 	