Y3	Autumn Term	Spring Term	Summer Term
Computer Science	**To design programs consisting of logically sequenced instructions.** **Unit3a:** Sequence and Animation – In this unit pupils learn to make things happen in a sequence, creating simple animations and simulations.	**To work with various forms of input/output.** Use scratch to creating a sequence of instructions that follow each other contained in one block that pupils can easily describe just by reading the blocks or telling you what they do. Explore offline and online communities as a way to be a good digital citizen.	**To design, write and debug programs that accomplish specific goals.** **Unit 3b:** Conditional Events – Pupils learn to code with if statements, which select different pieces of code to execute depending on happening to other objects.
Information Technology	**Combining text and graphics.** Using Strip Designer app to create a comic strip. Rewrite stories/ character descriptions. Using Morfo app – hot seating characters in English sessions.	**Presenting information and data**. Using Microsoft Publisher: To make a leaflet/ museum guide/ catalogue of artefacts/ newspaper article/ a guide to mummification for beginners. Using 'Pic Collage' to gather researched information about focused topic.	**Use a variety of software packages**. Using Keynote: Presenting a PowerPoint presentation on the local Wheatley Hill history, identifying key elements and present findings. Using 'skype' to communicate to other schools i.e, French.
Digital Literacy	**Classroom Display** Discuss the importance of E-safety. With the pupils decide and create an e-safety display for the classroom. **Powerful Passwords** Understand why people use passwords, and discover strategies for creating and keeping strong, secure passwords.	**My Online Community** Understand how the ability for people to communicate online can unite a community **Things for Sale** Examine product websites and understand its purpose of the site is to encourage buying the product.	**Show Respect Online** Explore the similarities and differences between in-person and online communications. **Writing Good Emails** Communicate effectively by email, thinking about purpose, audience and tone.

Y4	Autumn Term	Spring Term	Summer Term
Computer Science	**Use repetition in programs; Use logical reasoning to explain how some simple algorithms work;** Using scratch create a Roman animation. A conversation between two sprites that uses say or think for x seconds that makes the characters look like they are interacting.	**Work with Variables.** **Unit 4a:** Introduction to variables- learn how computers use variables to count things and keep track of what is going on. Pupils learn to create simple games which use a score variable • Lesson 1: Pop Game • Lesson 2: Catch the coconuts • Lesson 3: Shop till • Lesson 4: Pirate gold • Lesson 5: Healthy eating Lesson 6: Your own app (advanced)	**Use repetition in programs.** **Unit 4b:** Repetition and loops- Pupils learn how computers use repetition and loops to do things over and over again (and again!). • Lesson 1: Why use a loop? • Lesson 2: Stopwatch • Lesson 3: Countdown • Lesson 4: Loops in space • Lesson 5: Animation with loops • Lesson 6: Own app (advanced)
Information Technology	**To combine a variety of software to accomplish given goals and Select, use, combine software**. Create an iBook about the Romans. Using PowerPoint to present their findings about plants/animals	**To understand computer networks.** Looking at networks consisting of one or more computing devices connected together (website/Showbie). **To use search engines.** To research about the topic using a number of search technologies, selecting the most effective search terms, making criteria for results.	**To understand the opportunities computer networks offer for collaboration.** Construct questionnaire about the river Wear. Complete then analyse results to produce a report for teacher/ head-teacher include graphs/charts/tables. Using Audacity to create own version of a one direction song.
Digital Literacy	**Classroom Display** Discuss the importance of E-safety. With the pupils decide and create an e-safety display for the classroom. **Rings of Responsibility** Explore what it means to be responsible to and respectful of their offline and online communities, learning to be good digital citizens.	**Private/Personal Info** How you can protect yourself from online identify theft? Pupils think critically about the information they share online. **The Power of Words** Consider that they may get online messages that can make them feel different feelings. Identify actions that will make them stand up to cyberbullying.	**The Key to Keywords** Learn strategies to increase the accuracy of their keyword searches and make inferences about the effectiveness of the strategies. **Whose is it, Anyway?** Learn that copying the work of others and presenting it as one's own is called plagiarism. Learn about when and how it's ok to use the work of others.

Y5	Autumn Term	Spring Term	Summer Term
Computer Science	**Using Code to program an object.** Using A.L.E.X, pupils complete the different stages. Can the user light the blub? Using a keyboard input to control an aspects of the game. Pupils complete the hour of code.	**Use sequence in programs.** **Unit 5a:** Speed, direction and coordinates – Pupils learn computers use numbers to represent things such as how fast things are moving, and where they are. • Lesson 1: Faster and slower • Lesson 2: Simple driving game • Lesson 3: Around the world • Lesson 4: Parachuting cows • Lesson 5: Driving game Lesson 6: Own app	**Controlling or simulating systems.** **Unit 5b:**Random numbers- Pupils learn how computers can generate random numbers and how these can be used in simulations • Lesson 1: Making random numbers • Lesson 2: Caterpillar catcher • Lesson 3: Cross the road • Lesson 4: Ping pong • Lesson 5: Pinball • Lesson 6: Own app
Information Technology	**Variety of software on a range of devices.** Using Puppet Pals to create an animation. Pupils add imagines, background, video, sound and direction.	**Presenting information and data.** Using iMovie/video camera to create a short film/movie trailer. Pupils use a range of digital artefacts can be used such as graphics, videos, digital text, sound and multimedia.	**The internet and provision of multiple services.** Pupils to understand the global computer network and services that the internet provides. Using facetime, skype etc for Titanic passages to contact relatives.
Digital Literacy	**Classroom Display** Discuss the importance of E-safety. With the pupils decide and create an e-safety display for the classroom. **Strong Password** Learn how to create secure passwords in order to protect their private information and accounts online.	**Digital Citizenship** Pupils work together to outline common expectations in order to build a strong digital citizenship community. Pupils sign digital pledge. **You've Won a Prize** Learn what spam is, the forms it takes, and then identify strategies for dealing with it.	**How to Cite a Site** Reflect on the importance of citing all sources when they do research. They then learn how to write bibliographical citations for online sources. **Picture Perfect** Learn how photos can be altered digitally. They will consider the creative upsides of photo alteration, as well as its power to distort our perceptions of beauty and health.

Y6	Autumn Term	Spring Term	Summer Term
Computer Science	**To use selection in programs; Work with variables; Use logical reasoning to explain how some simple algorithms work** Using A.L.E.X, pupils complete the different stages. Can the user light the blub? Using a keyboard input to control an aspects of the game. Pupils complete the hour of code.	**Use sequence in programs; work with variables and various forms of input and output.** **Unit 6a:** Complex variables – Pupils learn to use variables in more complex ways, and to manipulate inputs to create useful outputs. - Lesson 1: Area calculator - Lesson 2: Unit conversion - Lesson 3: Unit conversion - Lesson 4: Maths challenges - Lesson 5: Clock app - Lesson 6: Own app	**Use repetition in programs; work with variables and various forms of input and output.** **Unit 6b:** Object properties – pupils learn more about how computers use property values and parameters to store information about objects. - Lesson 1: Sheepdog - Lesson 2: Football - Lesson 3: Space travel - Lesson 4: Don't feed the birds - Lesson 5: Golf game - Lesson 6: Own app
Information Technology	**To combine a variety of software to accomplish given goals and Select, use, combine software.** Use 'Green Screening' technology to place themselves in the trenches. Pupils just range of software to develop imagine. Pupils create a 'Dig for Victory' poster using MS Publisher.	**Use and combine software on a range of digital devices:** Using iMovie/iCamera app to plan, produce and edit a short animation of Romeo and Juliet. Using PowerPoint to present the water cycle and its importance? **To design and create systems.** Create a spreadsheet model to calculate quantities for population.	**To analyse & Evaluate data** Use an online football database to research a team in the world cup. Use to create Wikipedia type report. **To understand the opportunities computer networks offer for collaboration** Construct questionnaire in google forms about sports they play. Appreciate how results are selected and ranked and be discerning in evaluating digital content.
Digital Literacy	**Classroom Display** Discuss the importance of E-safety. With the pupils decide and create an e-safety display for the classroom. **Talking Safe Online** Learn that the internet is a great place to develop rewarding relationships. But they also learn not to reveal private information online.	**Super Digital Citizen** Explore Spiderman's motto, through the lens of digital citizenship. Create a comic strip to show a superhero who witnesses an act of poor digital citizenship. **Privacy Rules** Learn the pupil's website must protect their private information. Learn to identify these secure sites by looking for their privacy policies and privacy seals of approval.	**What's Cyberbullying** Explore how it feels to be cyberbullied, how cyberbullying is similar to or different than in person bullying, and learn strategies for handling cyberbullying. **Stereotypes** Explore how the media can play a powerful role in shaping our ideas about girls and boys. They practice identifying messages about gender roles in two online zones.