Computing
Subject Long Term Plan showing coverage across all year groups

	Autumn 1	Autumn 2	Spring	Summer 1	Summer 2
EYFS	**Ourselves – How are we the same or different?** ***PEOPLE WHO HELP US*** **Summary** Three activities based on our everyday superheroes, which have been designed to help pupils develop their computational thinking skills.	**How do we celebrate different events?** ***WINTER WARMERS*** **Summary** Snowmen scarves and patterns, creating igloos and bird feeders.	**What are the differences between cold and hot countries?** ***SPRINGTIME*** **Summary** Three spring themed activities allow the children to engage in computational thinking concepts and approaches creating junk scarecrows, make and explore a rabbit run and plant seeds.	**Fairy Tales/Traditional Stories/Dinosaurs – What do books help us learn about the past?** ***BOATS AHOY*** **Summary** Takes children on a journey of discovery as they investigate boats.	**Growing – What is growing all around us?** ***BUSY BODIES*** **Summary** Explore and learn about parts of the body, growth and movement. By creating simple algorithms to form a routine of movements.
1	**What is special about our area? School/Hedon- Geography** ***Computing systems & networks*** **Summary** . **Technology around us.** Recognising technology in school and using it responsibly. ***Links to prior learning*** Barefoot Computing EYFS curriculum which develops computational thinking.	**What makes the Xbox more fun than toys/games from the past? History** ***Creating media*** **Summary** **Digital painting** Choosing appropriate tools in a program to create art and making comparisons with working non-digitally. ***Links to prior learning*** Barefoot Computing EYFS curriculum which develops computational thinking.	**What did Paddington Bear do when he went to London? Geography** ***Programming A*** ***&*** ***Data & information*** **Summary** **Moving a robot** Writing short algorithms and programs for floor robots and predicting program outcomes. **Grouping data** Exploring object labels, then using them to sort and group objects by properties. ***Links to prior learning*** Barefoot Computing EYFS curriculum which develops computational thinking.	**Where do animals, dinosaurs and plants come from? Science** ***Creating media*** **Summary** **Digital writing** Using a computer to create and format text, before comparing to writing non-digitally. ***Links to prior learning*** Barefoot Computing EYFS curriculum which develops computational thinking.	**How easy is it to fly? History/Science** ***Programming B*** **Summary** **Programming animations** Designing and programming the movement of a character on screen to tell stories. ***Links to prior learning*** Barefoot Computing EYFS curriculum which develops computational thinking.
2	**How have people of the past influenced our lives today? History** ***Computing systems & networks*** **Summary** **Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond. ***Links to prior learning*** Recognising technology in school and using it responsibly.	**Why can't a Meerkat live in the North Pole? Geography/ Science** ***Creating media*** **Summary** **Digital photography** Capturing and changing digital photographs for different purposes. ***Links to prior learning*** Choosing appropriate tools in a program to create art.	**How do we know about the Great /fire of London? History** ***Programming A*** ***&*** ***Data & information*** **Summary** **Robot algorithms** Creating and debugging programs and using logical reasoning to make predictions. **Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**What do beaches have in common? (Bridlington & Sydney) Geography** ***Creating media*** **Summary** **Digital music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. ***Links to prior learning*** Using a computer to create and format text, before comparing to writing non-digitally.	**How do we know where we are? Map Makers Geography** ***Programming B*** **Summary** . **Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. ***Links to prior learning*** Designing and programming the movement of a character on screen to tell stories.

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			Links to prior learning Writing short algorithms and programs for floor robots and predicting program outcomes. Exploring object labels, then using them to sort and group objects by properties.		
3	**Early civilisations- How did they influence our lives today? History** ***Computing systems & networks*** **Summary** **Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. ***Links to prior learning*** Identifying IT and how its responsible use improves our world in school and beyond.	**How does Great Britain fit in Europe? History/Geography** ***Creating media*** **Summary** **Stop-frame animation** Capturing and editing digital still images to produce a stop frame animation that tells a story. ***Links to prior learning*** Capturing and changing digital photographs for different purposes.	**What did the Romans ever do for us? History** ***Programming A*** ***&*** ***Data & information*** **Summary** **Sequencing sounds** Creating sequences in a block-based programming language to make music. **Branching databases** Building and using branching databases to group objects using yes/no questions. ***Links to prior learning*** Creating and debugging programs and using logical reasoning to make predictions. Collecting data in tally charts and using attributes to organise and present data on a computer.	**Why Africa is a continent and what is significant about its history? History/Geography** ***Creating media*** **Summary** **Desktop publishing** Creating documents and modifying text, images and page layouts for a specific purpose. ***Links to prior learning*** Using a computer to create and format text.	**What were the greatest inventions and achievements of the Ancient Egyptians? History** ***Programming B*** **Summary** **Events & actions in programming** Writing algorithms and programs that use a range of events to trigger sequences of actions. ***Links to prior learning*** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

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4	**Why did the Anglo-Saxons and Scots want to settle in Britain? History** ***Computing systems & networks*** **Summary** . **The internet** Recognising that the internet is a network of networks including the WWW and why we should evaluate online content. ***Links to prior learning*** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.	**How has the River Humber affected life in our area? Geography/ Science** ***Creating media*** **Summary** **Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered. ***Links to prior learning*** . Capturing and editing digital still images to produce a stop frame animation that tells a story.	**Why did the Vikings and Anglo-Saxons battle for Britain? History** ***Programming A*** ***&*** ***Data & information*** **Summary** **Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes. **Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation. ***Links to prior learning*** Creating sequences in a block-based programming language to make music. Building and using branching databases to group objects using yes/no questions.	**What makes the Earth Angry? Geography/ Science** ***Creating media*** **Summary** **Photo editing** Manipulating digital images and reflecting on the impact of the changes and whether the required purpose is fulfilled. ***Links to prior learning*** Creating documents and modifying text, images and page layouts for a specific purpose.	**What happened to the Mayans? History** ***Programming B*** **Summary** , **Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game. ***Links to prior learning*** Writing algorithms and programs that use a range of events to trigger sequences of actions.
5	**What is significant about Kingston Upon Hull? Local history including slavery) History** ***Computing systems & networks*** **Summary** **Systems & searching** Recognising IT systems in the world and how some can enable searching on the internet. ***Links to prior learning*** Recognising that the internet is a network of networks including the WWW and why we should evaluate online content.	**How do rivers differ?** ***Creating media*** **Summary** **Video production** Planning, capturing, and editing video to produce a short film. ***Links to prior learning*** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**How has the Victorian period affected our lives? History** ***Programming A*** ***&*** ***Data & information*** **Summary** . **Selection in physical computing** Exploring conditions and selection using a programmable microcontroller. **Flat-file databases** Using a database to order data and create charts to answer questions. ***Links to prior learning*** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**How can we make £5 blossom? Local industry/ enterprise** ***Creating media*** **Summary** **Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects. ***Links to prior learning*** Manipulating digital images.	**How has Ancient Greece changed the world? History** ***Programming B*** **Summary** **Selection in quizzes** Exploring selection in programming to design and code an interactive quiz. ***Links to prior learning*** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

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6	**Why should rainforests be important to us all? Geography** ***Computing systems & networks*** **Summary** **Communication & collaboration** Exploring how data is transferred by working collaboratively online. ***Links to prior learning*** Recognising IT systems in the world and how some can enable searching on the internet.	**Who did WW2 impact our local area? History** ***Creating media*** **Summary** . **Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics and navigation. ***Links to prior learning*** Creating documents and modifying text, images and page layouts for a specific purpose.	**How did WW2 impact the local area? History** ***Programming A*** **Summary** **Variables in games** Exploring variables when designing and coding a game. **Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data. ***Links to prior learning*** . Using a block-based programming language to explore count-controlled and infinite loops when creating a game. Using a database to order data and create charts to answer questions.	**What will our coast look like in 20 years' time? Geography** ***Data & information*** ***&*** ***Creating media*** **Summary** **3D modelling** Planning, developing, and evaluation 3D computer models of physical objects. ***Links to prior learning*** Creating images in a drawing program by using layers and groups of objects.	**How will the Humber go carbon neutral? Geography/ Science** ***Programming B*** **Summary** **Sensing movement** Designing and coding a project that captures inputs from physical devices. ***Links to prior learning*** Exploring conditions and selection using a programmable microcontroller.