

Below outlines the learning focus for each term

Theme: To create responsible digital citizens who make smart choices online

Term	Learning Focus		Conceptual Development
	Knowledge	Skills	
Autumn 1	Computer Science To understand how computers use numbers to represent the properties of an object such as speed, direction and position	To program buttons to set or change the speed of an object To use positive and negative values To use keyboard inputs to change the speed and direction of an object To set values and use coordinates to control the movement of an object To debug code	Build upon: To create animations using loops, variables and conditions Prepare for: To create game simulations that use random numbers to control speed and direction
Autumn 2	Computer Science To understand that a computer network is a collection of computer systems and other devices To understand the difference between the internet and the WWW To understand how search engines select results To understand how search engines rank results To understand the potential dangers of browsing the web	To name devices on a computer network To explain the purpose of certain devices on a computer network To simulate how the internet provides access to the WWW To create a search index To simulate how search engines rank results To evaluate webpages	Build upon: To understand how search engines work Prepare for: To identify secure websites by identifying privacy seals of approval
Spring	Computer Science To understand how computers generate random numbers to control certain properties in a program to make things less predictable and more interesting To understand that a simulation is a computer program which models something from real life	To generate random numbers to control an object's speed To program an object to move in random directions and appear in random places To use different ranges of numbers to program objects to have different speeds and movements To create a virtual pinball game	Build upon: To create complex keyboard games that change the speed and direction of objects Prepare for: To use variables in more complex ways to program simulations
Summer 1	Information Technology To understand that a website is a collection of connected webpages	To type using two hands To use a search engine to research the planets of the solar system To format text and images To create a hyperlink To publish a website To comment on the features and layout of a website	Build upon: To create a digital recipe using effective formatting Prepare for: To create a spreadsheet that calculates a party budget

<p>Summer 2</p>	<p>Information Technology To understand that a podcast is a downloadable recording To know what features make good quality audio content</p>	<p>To listen to different podcasts To plan a podcast To record and play their own audio using recording software To enhance sound recordings using software effects To listen to and improve their recordings by re-recording To record and play their own audio using recording software To enhance sound recordings using software effects To listen to and improve their recordings by re-recording</p>	<p>Build upon: To create a stop motion animation clip Prepare for: To create and edit a film documentary</p>
<p>Online Safety Lessons (1 per half term)</p>	<p>Digital Literacy To understand the potential dangers of spam email To understand why it is important to cite sources To understand why having a strong password is important To understand that not everything I see online is true To understand why it is important to be kind and respectful online</p>	<p>To identify spam emails and what to do with them To write citations for websites I use for research To create strong passwords To explain how false photographs can make people feel bad about themselves To demonstrate ways to build positive and healthy online relationships and friendships</p>	<p>Build upon: To understand the term 'plagiarism' and how to avoid it Prepare for: To identify different types of online scams, including phishing</p>