

ICT – Year 5

	Topic and Assessment / Outcomes	Knowledge Progression / Resources	Vocabulary	Skills Progression Links within / across curriculum	Links with BLP and SMSC	Extra-curricular Career aspirations
A u t u m n 1	Coding	<ul style="list-style-type: none"> To understand what simulating a physical system means. To describe how to use variables to make a countdown timer and score-pad for a game. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> 2Dos Tools 2Chart Free code gorilla Knowledge Organiser 	Action Alert Algorithm Bug Code Design Command Control Debug/Debugging Design Mode Event Get Input If If/Else Input Output Object Repeat Sequence Selection Simulation Timer Variable	<ul style="list-style-type: none"> To represent a program design and algorithm. To create a program that simulates a physical system using decomposition. To explore string and text variable types so that the most appropriate can be used in programs. To use the Launch command in 2Code Gorilla To program a playable game with timers and scorepad. 	<p>BLP</p> <ul style="list-style-type: none"> Perseverance Planning Imagining Reasoning Noticing Questioning <p>SMSC</p> <ul style="list-style-type: none"> Using imagination and creativity 	<ul style="list-style-type: none"> Programmer Game Developer Software Developer Web Developer
A u t u m n 2	Online Safety	<ul style="list-style-type: none"> To know who to tell if I see anything online that makes me upset or scared. To understand why passwords are important. To know why it is important to reference sources in my work. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> Display Boards 2Paint A Picture 2Connect 2Publish Plus Knowledge Organiser 	Online Safety Smart Rules Password Reputable Encryption Identity Theft Shared Image Plagiarism Citations Reference Bibliography	<ul style="list-style-type: none"> To gain a greater understanding of the impact that sharing digital content can have. To review sources of support when using technology and children's responsibility to one another in their online behaviour. To know how to maintain secure passwords. To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. To learn about how to reference sources in their work To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. 	<p>BLP</p> <ul style="list-style-type: none"> Noticing Imitation Revising <p>SMSC</p> <ul style="list-style-type: none"> Recognise right and wrong Understand consequences Understand, accept, respect and celebrate diversity 	<ul style="list-style-type: none"> Teacher Police officer Cyber/ Criminologist

S p r i n g 1	Spreadsheets	<ul style="list-style-type: none"> To know how to add a formula to a cell so that the cell shows the product of two other cells. To know what to use to have a cell that automatically calculates the number of days since a certain date. To explain what a spreadsheet model of a real-life situation is and what it can be used for. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> 2Calculate Knowledge Organiser 	Average Advance Mode Copy and Paste Columns Cells Charts Equals Tool Formula Formula Wizard Move Cell Tool Random Tool Rows Spin Tool Spreadsheet Timer	<ul style="list-style-type: none"> Using a formula wizard to add a formula to a cell to automatically make a calculation in that cell. To copy and paste within a spreadsheet. Use spreadsheet tools to test a hypothesis. To add a formula to a cell to automatically make a calculation in that cell. Using a spreadsheet to model a real-life situation and answer questions. 	BLP <ul style="list-style-type: none"> Perseverance Questioning Noticing making links SMSC <ul style="list-style-type: none"> Reflection Understand consequences Participate, volunteer and cooperate 	<ul style="list-style-type: none"> Global skill applicable to most jobs Admin Team Member/Admin Team Manager Accountant Software Developer Web Developer
S p r i n g 2	Databases	<ul style="list-style-type: none"> To know what a database is To understand what collaborative features of software are important. To know a variety ways to sort information in a database. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> 2Investigate Knowledge Organiser 	Avatar Binary Tree/Branching Database Charts Collaborative Data Database Find Record Sort, Group and Arrange Statistics and Reports Table	<ul style="list-style-type: none"> To learn how to search for information in a database To contribute to a class database To create a database around a chosen topic 	BLP <ul style="list-style-type: none"> Perseverance Planning Noticing Collaboration SMSC <ul style="list-style-type: none"> Using imagination and creativity. Asking questions to aid understanding. Offer reasoned views. 	<ul style="list-style-type: none"> Global skill applicable in all jobs
S u m m e r 1	Game Creator	<ul style="list-style-type: none"> To understand what makes a good computer game. To know why it is important to continually evaluate your game. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> 2DIY3D Knowledge Organiser 	Animation Computer Game Customise Evaluation Image Instructions Interactive Screenshot Texture Perspective Playability	<ul style="list-style-type: none"> To set the scene. To create the game environment. To create the game quest. To finish and share the game. To evaluate their and peers' games. 	BLP <ul style="list-style-type: none"> Perseverance Planning Noticing Imagining SMSC <ul style="list-style-type: none"> Using imagination and creativity. 	<ul style="list-style-type: none"> Game developer Game designer

S u m m e r 2	3D Modelling	<ul style="list-style-type: none"> To understand there are different views of an object available within CAD software. To understand that objects designed in CAD can be turned into 3D objects To know how CAD software is used in industry. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> 2Design And Make Knowledge Organiser 	CAD (Computer Aided Design) Modelling 3D Viewpoint Polygon 2D Net 3D Printing Points Template	<ul style="list-style-type: none"> To be introduced to CAD software. To explore the effect of moving points when designing. To understand designing for a purpose. To understand printing and making. 	BLP <ul style="list-style-type: none"> Perseverance Planning Noticing SMSC <ul style="list-style-type: none"> Asking questions to aid understanding Offer reasoned views 	<ul style="list-style-type: none"> Architect Surgeons Land developer Council members Housing developers
S u m m e r 2	Concept Maps	<ul style="list-style-type: none"> To understand what a concept map is. To understand how information is arranged on a concept map. To understand how a concept map helps to share ideas. <p><u>Resources</u></p> <ul style="list-style-type: none"> Purple Mash <ul style="list-style-type: none"> 2Connect Knowledge Organiser 	Audience Collaboratively Concept Concept Map Connection Idea Node Thought Visual	<ul style="list-style-type: none"> To understand the need for visual representation when generating and discussing complex ideas. To understand and use the correct vocabulary when creating a concept map. To create a concept map. To understand how a concept map can be used to retell stories and present information. To create a collaborative concept map and present this to an audience. 	BLP <ul style="list-style-type: none"> Perseverance Planning Noticing Making links Collaboration SMSC <ul style="list-style-type: none"> Using imagination and creativity 	<ul style="list-style-type: none"> Global skill applicable to most jobs