The Piggott School: Charvil Primary

'Go and do Likewise' Luke 10:25, -37 The Parable of the Good Samaritan
We live with love and compassion, seeking help in times of need

Curriculum Map: Computing Year 6

	Autumn 1 **Computing systems and networks – communication**	**Autumn 2** **Creating media – 3D modelling**	**Spring 1** **Creating media – Web page creating**	**Spring 2** **Data and information - Spreadsheets**	**Summer 1** **Programming A – Variables in games**	**Summer 2** **Programming B - sensing**
Content Declarative Knowledge 'I know'	*recognise that data is transferred across networks using agreed protocols (methods) *recognise that connections between computers allow access to shared stored files *explain that data is transferred in packets *recognise computers connected to the internet allow people in different places to work together *discuss the opportunities that technology offers for communication and collaboration *explain which types of media can be	*explain that 3D models can be created on a computer *recognise that a 3D environment can be viewed from different perspectives *recognise that digital tools can be used to manipulate 3D objects *show how placeholders can create holes in 3D objects *recognise that artefacts can be broken down into a collection of 3D objects	*recognise the relationship between HTML and visual display *recognise that web pages can contain different media types *recognise that web pages are written by people *recognise that a website is a set of hyperlinked webpages *recognise components of a web page layout *recognise the need to preview pages (different screens / devices) *recognise the need for a navigation path *recognise the implications of	*identify questions that can be answered using spreadsheet data *explain what an item of data is in a spreadsheet *explain how the data type determines how a spreadsheet can process the data *explain that formulas can be used to produce calculated data *recognise cells can be linked *explain why data should be organised in a spreadsheet *recognise that a cell's value automatically updates when the	*define a 'variable' as something that is changeable *identify examples of information that is variable, for example, a football score during a match *explain that a variable can be used in a program eg score *define a program variable as a placeholder in memory for a single value *explain that a variable has a name and a value *recognise that the value of a variable can be used by a program	*explain the importance of writing up a variable in the start of a program (initialisation) *explain that there is only one value for a variable at any one time *explain that if you need a variable the value remains

	shared through the internet *explain that communicating and collaboration using the internet can be public or private		linking to content owned by others	value in a linked cell is changed *evaluate results in comparison to the question asked	*recognise that the value of a variable can be updated *explain that the name of a variable is meaningless to the computer	
Skills Procedural Knowledge 'I know how to'	*outline methods of communicating and collaborating using the internet *choose methods of internet communication and collaboration for given purposes *evaluate different methods of online communication and collaboration *decide what you should and should not share online	*position 3D shapes relative to one another *use digital tools to modify 3D objects *combine objects to create a 3D digital artefact *use digital tools to accurately size 3D objects *construct a 3D model which reflects a real life object	*review an existing website (navigation bars, header) *create a new blank web page *add text to a web page *set the style of text on a web page *embed media in a web page *add web pages to a website *change the appearance of text *preview a webpage *insert hyperlinks between pages and to another site	*calculate data using a formula for each operation *use functions to create new data *use existing cells within a formula *choose suitable ways to present spreadsheet data	*identify a variable in an existing program *experiment with the value of an existing variable *chooses a name that identifies the role of a variable to make it easier for humans to understand it *decide where in a program to set a variable *update a variable with a user input *use an event in a program to update a variable	*choose a series of words that can be enacted as a sequence *explain what happens when we change the order of instructions *choose a series of commands that can be run as a program *trace a sequence to make a prediction *test a prediction be running a sequence *create and debug a program *run a program on a device
Vocabulary	Networks, agreed protocols (methods), packets, communication, collaboration, data packets	3D models, 3D shapes, 3D digital artefact	HTML, visual display, copyright, hyperlinks, media	Spreadsheet, data, Software, cells	Variable, program, placeholder, initialisation, conditional statement	Variable, program, placeholder, initialisation, conditional statement
Key Questions	How are packets of data transferred over the internet? How does the internet facilitate online	How can we use computers to produce 3D models? How can we work in a 3D space, moving,	How can we create websites for a chosen purpose? What makes a good web page? How can we	What are spreadsheets? How can we organise data into columns and rows to create their	What are variables in programming? How can we use variables to create a simulation of a scoreboard?	How can we use all our skills to design our programming constructs?

	communication and collaboration?	resizing and duplicating?	design and evaluate our own website?	own data set? How can we use a spreadsheet to plan an event and answer a question?		
Assessment	Self-assessment in every lesson with success criteria for each lesson Observations by teacher					
Cross Curricular Links/Character Education	E-safety/digital citizenship: describe the benefits and potential risks of sharing information online	Art and Design DT – generation, modelling and communicating ideas through computer-aided design	English – writing composition E-safety/digital citizenship: use the internet with adult support Copyright and ownership	Maths: solve problems involving addition, subtraction, multiplication and division Managing information online: use search technologies, evaluate digital content	Individual liberty: pupils are given freedom to experiment with creating programs Individual liberty: Composition provides opportunity	