Unit	Lesson name	Lesson No.	Learning objective	Expected Standard (EXS)	Greater depth (GDS)
Graphing	Comparative Bar Charts	1	To create comparative bar charts using graphing software.	Children can explain the advantages of using graphing software to create common graph types compared to traditional pen and paper methods.	Children can explain the advantages of using graphing software and provide details on steps that the software takes care of such as calculating angles for a pie chart.
	Pie Charts	2	To create pie charts using graphing software.	Children experiment with software features such as selection of chart type, scale interval size for y-axis, category colour and dataset colour to present their graphs in the best possible way. Children can export charts and import them into publishing files to produce short reports. Children can use and compare more than one piece of software to create graphs and identify the benefits each one has.	Children can use graphing features to present graphs in the best possible way. They demonstrate a sound understanding of how graphs can help people draw conclusions and make decisions based upon data by independently pinpointing relevant features of the graphs that they produce.
	Line Graphs	3	To create line graphs using graphing software.	Children experiment with software features such as selection of chart type, scale interval size for y-axis, category colour and dataset colour to present their graphs in the best possible way. Children can export charts and import them into publishing files to produce short reports. Children can use and compare more than one piece of software to create graphs and identify the benefits each one has.	Children can use graphing features to present graphs in the best possible way. They demonstrate a sound understanding of how graphs can help people draw conclusions and make decisions based upon data by independently pinpointing relevant features of the graphs that they produce.
	Solving a Problem	4	To present data in graphs to support an argument.	They can select the most appropriate graph types for data given or collected.	They can select the most appropriate graph types for given data or collected data and give examples of why some data might be suitable for more than one graph type dependent on what the overall intention is.
Spreadsheets	Introduction to Google Sheets	1	To understand and use basic formatting in Google Sheets.	Children can confidently enter, edit and format data to make a spreadsheet clear and easy to read.	They confidently apply a wide range of formatting techniques and organise information logically across several worksheets.
	Using Basic Functions	2	To develop skills in using basic functions in Google Sheets.	They can write simple formulae and reliably use functions such as SUM, AVERAGE, MIN and MAX to analyse information	They can write formulae efficiently and use advanced functions such as COUNT, COUNTA, COUNTIF and IF to answer more complex questions.

	Charts	3	To create and format charts in Google Sheets.	Children can create bar, line and pie charts, select appropriate chart types for different data sets, and apply titles and labels to support understanding.	Children can interpret data trends and make informed decisions based on their findings. Their charts are carefully chosen, well-formatted and adapted to highlight key information.
	Sorting and Filtering Data	4	To sort and filter data within a spreadsheet.	They can sort and filter data appropriately and use these tools to answer questions or spot patterns.	They can also combine skills such as sorting, filtering, advanced functions and charting, to build well-structured spreadsheets that model real-life scenarios effectively.
	Advanced Functions	5	To understand and use advanced functions in Google Sheets.	When errors appear, such as #DIV/0! or #NAME, children can identify likely causes and correct them.	They troubleshoot errors systematically, explaining how to fix them.
	Using a Spreadsheet to Model a Situation	6	To combine Google Sheets skills to create an effective spreadsheet for a given purpose.	They can organise their spreadsheet effectively across multiple worksheets.	Children show strong independence and accuracy when creating spreadsheets for a clear purpose.
Coding	Using Cloning	1		Children can confidently use 2Code to design and program interactive activities using variables, inputs and cloning.	Children show excellent understanding of programming concepts and apply them creatively. They design original programs using features such as cloning.
	Using Hotspots	2	To explore the use of hotspots in 2Code.	Children can confidently use 2Code to design and program interactive activities using hotspots.	Children show excellent understanding of programming concepts and apply them creatively. They design original programs using features such as draggable attributes, hotspots, and text-based user input.
	User Input	3	To understand the different options for generating and using user input in 2Code.	They can follow and create simple flowcharts and use them to debug and improve their programs.	They explain their reasoning clearly and reflect thoughtfully on how to improve their code.
	Flowcharts and Control Simulations	4	To use flowcharts to test and debug a simulation.	They show independence in debugging and generally create programs that meet the design specification	They anticipate and prevent common user input errors and debug effectively with minimal support.
	Using Programme Design Documents	5	To use program design documentation to produce a program.	They understand how to build user interfaces and structure their code using functions and subroutines. They apply decomposition and abstraction to break down and simplify tasks.	They efficiently use flowcharts and design documentation to plan and structure their work. Their programs include selection, loops (e.g. repeat until), well-named variables, and reusable functions.
	Text Based Adventures	6	To understand how 2Code can be used to make a text-based adventure game.	They adapt code to personalise their work, including changing room content in a text-based adventure or modifying outputs based on user input.	Their adaptations to programs demonstrate higher-order thinking, such as complex logic in text adventures.

Introduction to Python	Text Output	1	To understand that Python is a text-based coding language and enter simple commands.	Children can explain the difference between text and block-based coding languages. They recognise the uses of Python and can explain why it is more adaptable and flexible than using block-based coding. Children know that Python has strict text formatting rules that must be followed for programs to run without errors. Children can use some of the key syntax conventions to enter simple commands that produce outputs.	Children can explain the difference between text and block-based coding languages. They can identify the advantages of using a text-based coding language such as Python over block-based coding. Children can use the syntax rules of Python to write commands that produce outputs.
	Python and Mathematical Calculations	2	To use Python to perform mathematical calculations.	They can write code that prints strings, variable values and calculations.	Children are experimental with their coding and purposefully manipulate functions to write code that produces varied outputs.
	Using Repeat	3	To be able to use repetition and Python library functions.	Children explore writing the code for simple loops and control the speed of execution using sleep commands.	They can demonstrate how functions including print(), range() and sleep() can be modified to produce the required coding logic. They write loops that make use of sleep commands.
	Moving Sprites	4	To understand how Python in Pieces can be used to program a graphical user interface.	They can control aspects of the graphical user interface using Python coding.	They can control aspects of the graphical user interface using Python coding and extend themselves to create novel programs.
Blogging	What is a Blog?	1	To understanding blogs and their features	Children know what a blog is.	Children know what a blog is and how it differs from a vlog.
	Planning a Blog Post	2	To plan the theme, content and structure for a blogpost.	They can contribute to shared planning for a blog post with scaffolding and support to include all the key features of a blog post.	Children can create a blog with purpose, structure, and audience-awareness.
	Creating a Blog Post	3	To write and style a blog post.	They can use the suggested structure to edit and revise their shared blog post to get it to the point of publication.	They have a deeper appreciation of how a successful blog engages with the audience and what methods they can use to best do
	Share and Respond	4	To review and comment on blog posts with an understanding of online safety.	They can make useful comments on others' blog posts and appreciate the need to word comments carefully and considerately.	Children can critique, refine, and evaluate blogs using higher-level digital skills.
Data Detectives	Filtering and Sorting Data	1	To find information in databases by filtering and sorting.	Children can explain what databases are and how they are used by individuals and organisations. They are able to understand the different common tools that are used for finding information and can create queries using a combination of these tools that provide requested information.	Children can explain what databases are, how they are used and provide a range of different user case examples. They understand the range of tools that are available for creating queries and how they can be used individually or in a combined approach to produce queries.

	Graphing Using Databases	2	To create graphs from data within a database.	Children recognise the different ways data can be extracted from databases to provide information, including the use of charting tools to present this.	They are able to link suitable tables together based on the data they contain and run queries unsupported that contain data from more than one table.
	Linking Tables	3	To be able to find information in linked table databases.	Children can link tables together using common fields and create queries that involve linked tables.	Children might begin to experiment with applying multiple conditions in a filter that contain brackets and observe the effect of this on results displayed when run.
	Database Information Requests	4	To be able to find requested information using databases.	Children show an ability to translate information requests into database queries and can methodically check for errors.	Children methodically work out information requests, translate this into a query and can justify their proposed methods.