Year 6 Scheme of Learning: Computing

Year 6 - Networks

Lesson 1	
Learning Objective	**To understand the world wide web and the internet.**
Declarative Knowledge	• To know what the children know about the internet. • To know the difference between the World Wide Web and the internet.
Procedural Knowledge	Tinkering - Revisit programming language. - Identify successes and failures in their tinkering. Persevering - To deal with ambiguity.
Key Vocabulary	Internet, world wide web, website, network, web server, web page, hosting, data.

Lesson 2	
Learning Objective	**To understand the world wide web and the internet.**
Declarative Knowledge	• To know what the children know about the internet. • To know the difference between the World Wide Web and the internet.
Procedural Knowledge	Tinkering - Revisit programming language. - Identify successes and failures in their tinkering. Persevering - To deal with ambiguity.
Key Vocabulary	Internet, world wide web, website, network, web server, web page, hosting, data.

Lesson 3	
Learning Objective	**To understand out school network and accessing the internet.**
Declarative Knowledge	• To know how to access the internet in the school. • To know how to find out what a LAN and WAN are.
Procedural Knowledge	Tinkering - Revisit programming language. - Identify successes and failures in their tinkering. Persevering - To deal with ambiguity.
Key Vocabulary	Internet, world wide web, website, network, web server, web page, hosting, data, LAN, WAN. WLAN, router, hub, switch, Ethernet, Wi-Fi.

Lesson 4	
Learning Objective	**To understand out school network and accessing the internet.**
Declarative Knowledge	• To know how to access the internet in the school. • To know how to find out what a LAN and WAN are.
Procedural Knowledge	Tinkering - Revisit programming language. - Identify successes and failures in their tinkering. Persevering - To deal with ambiguity.
Key Vocabulary	Internet, world wide web, website, network, web server, web page, hosting, data, LAN, WAN. WLAN, router, hub, switch, Ethernet, Wi-Fi.

Lesson 5	
Learning Objective	**To research and find out about the age of the internet.**
Declarative Knowledge	• To know about what the future might hold. • To know about Tim Berners-Lee. • To know some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult.
Procedural Knowledge	Tinkering - Revisit programming language. - Identify successes and failures in their tinkering. Persevering - To deal with ambiguity.
Key Vocabulary	Internet, world wide web, website, network, web server, web page, hosting, data, LAN, WAN. WLAN, router, hub, switch, Ethernet, Wi-Fi, search engine, IP address, ISP, DNS.

Lesson 6	
Learning Objective	**To research and find out about the age of the internet.**
Declarative Knowledge	• To know about what the future might hold. • To know about Tim Berners-Lee. • To know some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult.
Procedural Knowledge	Tinkering - Revisit programming language. - Identify successes and failures in their tinkering. Persevering - To deal with ambiguity.
Key Vocabulary	Internet, world wide web, website, network, web server, web page, hosting, data, LAN, WAN. WLAN, router, hub, switch, Ethernet, Wi-Fi, search engine, IP address, ISP, DNS.

Year 6 - Quizzing

Lesson 1	
Learning Objective	**To create a picture-based quiz for young children.**
Declarative Knowledge	• To know how to use 2DIY activities to create a picture-based quiz. • To know how to consider the audience's ability level and interests when setting the quiz. • To know how to share their quiz and responded to feedback.
Procedural Knowledge	Creating - Plan, design and make a project. - Creating a quiz.
Key Vocabulary	Quiz, audience, copy, paste, selfie, undo, redo, audio, clipart, image.

Lesson 2	
Learning Objective	**To learn how to use the question types within 2Quiz.**
Declarative Knowledge	• To understand the different question types within 2Quiz. • To know how to sort questions dependent on what is best suited to the different question types. • To know how to use 2Quiz to make and share a quiz (any subject).
Procedural Knowledge	Creating - Plan, design and make a project. - Creating a quiz.
Key Vocabulary	Quiz, audience, preview, case-sensitive, clone.

Lesson 3	
Learning Objective	**To learn how to use the question types within 2Quiz.**
Declarative Knowledge	• To know how to consider the audience's ability level and interests when setting the quiz. • To know how to share their quiz with peers. • To know how to give and respond to feedback.
Procedural Knowledge	Creating - Plan, design and make a project. - Creating a quiz.
Key Vocabulary	Quiz, audience, preview, case-sensitive, clone.

Lesson 4	
Learning Objective	**To explore the grammar quizzes.**
Declarative Knowledge	• To know how to give out the different types of grammar games. • To know how to choose an appropriate tool to make their own grammar game(s).
Procedural Knowledge	Creating - Plan, design and make a project. - Creating a quiz.
Key Vocabulary	Quiz, cloze.

Lesson 5	
Learning Objective	**To make a quiz that requires the player to search a database.**
Declarative Knowledge	• To know how to use a 2Investigate quiz to answer quiz questions. • To know how to design their own quiz based on one of the 2Investigate example databases.
Procedural Knowledge	Creating - Plan, design and make a project. - Creating a quiz.
Key Vocabulary	Database, record, field, statistics.

Lesson 6	
Learning Objective	**To make a quiz to test your teachers or parents.**
Declarative Knowledge	• To know how to use their knowledge of quiz types to create a quiz show quiz based on a curriculum area.
Procedural Knowledge	Creating - Plan, design and make a project. - Creating a quiz.
Key Vocabulary	Quiz, audience.

Year 6 - Spreadsheets

Lesson 1	
Learning Objective	**To know what a spreadsheet looks like.**
Declarative Knowledge	• To know some uses of a spreadsheet tool. • To know how to navigate around a spreadsheet using cell references. • To know how to enter data into cells. • To know new vocabulary relating to spreadsheets: cells, columns, rows, cell names, sheets, workbook.
Procedural Knowledge	Tinkering - Investigate new software. - Identify successes and failures in their tinkering. Creating - creating a document.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories, ribbon.

Lesson 2	
Learning Objective	**To demonstrate how the use of Excel can save time and effort when performing calculations.**
Declarative Knowledge	• To know how to use a spreadsheet to carry out basic calculations including addition, subtraction, multiplication and division formulae. • To know how to use the series fill function. • To know formulae allows the data to change and the calculations to update automatically.
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series.

Lesson 3	
Learning Objective	**To use a spreadsheet to model a situation.**
Declarative Knowledge	• To know how to use a spreadsheet to model a situation. • To know how to use a spreadsheet to solve a problem. • To know how to use the SUM function.
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series, computational model, template, budget, expense, formatting, currency.

Lesson 4	
Learning Objective	**To demonstrate how Excel can make complex data clear by manipulating the way it is presented.**
Declarative Knowledge	• To know how to use a variety of methods including flash fill, convert text to tables and splitting cells for organising and presenting their data in a spreadsheet. • To know what is meant by a delimiter. • To know how to sort data.
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series, computational model, template, budget, expense, formatting, currency, delimiter, sorting, flash-fill, auto-fill.

Lesson 5	
Learning Objective	**To use formulae for percentages, averages, max and min in spreadsheets.**
Declarative Knowledge	• To know how to incorporate formulae for percentages, averages, max and min into their spreadsheets. • To know how to gain familiarity with range notation. • To know some shortcuts that help to make data meaningful. • To know how to begin to develop a critical eye when it comes to the conclusions that can be made from data.
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series, computational model, template, budget, expense, formatting, currency, delimiter, sorting, flash-fill, auto-fill, sorting, filter, average, minimum, maximum.

esson 6	
Learning Objective	**To create a variety of graphs in Excel.**
Declarative Knowledge	• To know that there are ways to represent their data graphically and that spreadsheets can make the process of representing data easier. • To know how to gain an understanding of how a graphical representation can make data easier to interpret. • To know how to make a variety of charts using Sheets. • To know how to illustrate their data using spark lines and data bars.
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series, computational model, template, budget, expense, formatting, currency, delimiter, sorting, flash-fill, auto-fill, sorting, filter, average, minimum, maximum, horizontal axis, vertical axis, conditional formatting.

Lesson 7	
Learning Objective	**To use a spreadsheet to model a real-life situation.**
Declarative Knowledge	• To know how a spreadsheet can be used to plan an event. • To know the advantages of using formulae when data is subject to change. • To know how to model a real-life situation using a spreadsheet.
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series, computational model, template, budget, expense, formatting, currency, delimiter, sorting, flash-fill, auto-fill, sorting, filter, average, minimum, maximum, horizontal axis, vertical axis, conditional formatting, profit

Lesson 8	
Learning Objective	**To apply spreadsheet skills to solving problems.**
Declarative Knowledge	• To know how to apply all new spreadsheet skills to solving problems and presenting data. • To know how to explore printing spreadsheets
Procedural Knowledge	Tinkering - Identify successes and failures in their tinkering. Creating - creating a document. Persevering - develop and refine ideas.
Key Vocabulary	Spreadsheet, data, row, column, cell, cell reference, workbook, sheet, categories ribbon, formula, formulae, calculation, formula bar, series, computational model, template, budget, expense, formatting, currency, delimiter, sorting, flash-fill, auto-fill, sorting, filter, average, minimum, maximum, horizontal axis, vertical axis, conditional formatting, profit.