Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Technology around us**	Digital painting	moving a robot	Grouping data	Digital writing	Programming animations
Literacy Focus **Numeracy Focus**	**Listening for meaning in non-fiction texts.** **Ordering numbers**	**Describing images** **Shapes**	**Instructions** **Small numbers**	**Explaining thoughts** **Grouping by criteria.**	**Writing simple words.** **Counting**	**Sequencing** **Logic**
SMSC	**Impact of technology on society.**	**Expressing emotions and feelings**	**Using technology responsibly**	**Sharing information with others in a constructive way.**	**Communication with others**	**Representing diversity in animations**
Year 2	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Areas of Study	Information technology around us	Digital photography	Robot algorithms	Pictograms	Making music	**Programming quizzes**
Literacy Focus **Numeracy Focus**	**Listening for meaning in non-fiction texts.** **Ordering numbers**	**Describing images** **Shapes**	**Describing and explaining concepts. Sequencing** **Logic and adding**	**Writing explanation texts** **Graphs and charts**	**Creating sequences.** **Time calculations**	**Writing questions and answers. Research.** **logic**
SMSC	**Digital divide**	Personal choices.	**Using technology responsibly**	**Sharing information with others in a constructive way.**	**Using art to communicate emotions.**	Making games accessible to all.
Year 3	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Areas of Study	**Connecting computers**	Stop-frame animation	Sequencing sounds	**Branching databases**	Desktop publishing	**Events and actions in programs.**
Literacy Focus **Numeracy Focus**	**Listening for meaning in non-fiction texts. Explaining ideas.** **Ordering numbers**	**Creating and following a storyboard. Using direct speech.** **Time calculations**	**Creating sequences.** **Time calculations**	**Writing explanation texts** **Graphs and charts**	Creating non-fiction texts to clearly communicate a message. Measuerments	**Describing and explaining concepts. Sequencing.** **Logic and adding**
SMSC	**Communicating safely.**	**Representing diversity in animations**	**Using art to communicate emotions.**	**Sharing information with others in a constructive way.** **Responsibility to represent data accurately.**	Using technology to communicate a message honestly.	Making games accessible to all.

Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**The Internet**	Audio editing	Repetition in shapes	Data logging	Photo editing	Repetition in games
Literacy Focus **Numeracy Focus**	**Reading for meaning, non-fiction texts.** **Understanding large numbers**	**Creating and reading scripts** **Time calculations**	**Describing pictures** **Shapes and angles**	**Writing explanation texts** **Graphs and charts**	**Reading and understanding instructions** **X and y co-ordinates.**	**Describing and explaining concepts.** **Logic and adding**
SMSC	**Safe communication and respecting differences.**	**Respectfully expressing emotions in art.**	**Understand the impact algorithms can have.**	**Respecting privacy when collecting data Responsibility to represent data accurately.**	**Respecting other's ownership of work.**	**Understand the need for accessibility in games.**
Year 5	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Areas of Study	Sharing information	Video editing	Selection in physical computing	Flat-file databases	Vector drawing	**Selection in quizzes**
Literacy Focus **Numeracy Focus**	**Reading for meaning, non-fiction texts.** **Understanding large numbers**	**Creating and reading scripts** **Time calculations**	**Describing and explaining concepts.** **Logic and adding**	**Exploring non-fiction texts** **Types of numbers, for example integers and fractions.**	**Reading and understanding instructions** **X and y co-ordinates.**	**Writing questions and answers. Research.** **Logic**
SMSC	**Safe communication and respecting differences. Communicating respectfully.**	**Respecting other's ownership of work.**	**Understand the impact that algorithms can have.**	**Respecting privacy when collecting data Responsibility to represent data accurately.**	**Respectfully expressing emotions in art. Respectfully expressing criticism.**	**Understand the need for accessibility in games.**
Year 6	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Areas of Study	**Internet communication**	Webpage creation	ariables in games	**Introduction to spreadsheets**	3D modelling	**Sensing**
Literacy Focus **Numeracy Focus**	**Reading for meaning, non-fiction texts.** **Understanding large numbers**	**Writing for meaning, non-fiction texts.** **Understanding large numbers**	**Describing and explaining concepts.** **Logic and arithmetic. Types of numbers.**	**Exploring non-fiction texts** **Types of numbers, for example integers and fractions. Charts and graphs. X and y co-ordinates.**	**Reading and understanding instructions** **X, y and z co-ordinates.**	**Describing and explaining concepts.** **Logic and adding**
SMSC	**Safe communication and respecting differences opinions. Communicating respectfully.**	**Safe communication and respecting differences opinions. Communicating respectfully.**	**Understand the need for accessibility in games.**	**Respecting privacy when collecting data Responsibility to represent data accurately.**	**Respectfully expressing emotions in art. Respectfully expressing criticism.**	**Respecting privacy when collecting data Responsibility to represent data accurately.**

Year 7	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	Impact of technology – Collaborating online respectfully Using computers to present information to a specific audience.	Networks from semaphores to the Internet Protocols and hardware Wired and wireless networks	Using media – Gaining support for a cause Using appropriate software Copyright Using computers for research	Programming essentials in Scratch – part I Sequences and variables Selection and operators Problem solving	Programming essentials in Scratch – part II Planning and designing programming solutions to problems.	Modelling data – Spreadsheets Understanding spreadsheets Issues with collecting data Turning data into information
Literacy Focus **Numeracy Focus**	Persuasive texts, precise writing, non fiction writing, writing for meaning Statistics and presenting data.	Communion skills. Number bases	Persuasive texts, reading for meaning. Shapes and proportions. Time.	Precise writing and writing instructions. Logic and operations.	Precise writing and writing instructions. Editing. Logic and operations.	Reading for meaning and exploring the author's intention. Data and statistics.
SMSC	"- Online bullying- Online relationships- Privacy and security" Considering the author of a text when interoperating.	- Privacy and security	"- Copyright and ownership- Managing online information"	The affect that computer programs can have on individuals.	The affect that computer programs can have on individuals.	Taking responsibility for data. How can/should data be used by society.

Year 8	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	Developing for the web How to construct a web page How to use the WWW effectively	Representations – from clay to silicon Binary and data representation Storage on computers	Mobile app development Defining apps Designing and implementing an app	Media – Vector graphics Defining vector graphics Creating and editing vector graphics Where can and should they be used?	Computing systems Parts of a computer system Logic in computer systems Sharing data between computers	Introduction to Python programming Principles behind python From Scratch to Python
Literacy Focus **Numeracy Focus**	Non-fiction texts, reading for meaning and following instructions. Shapes and positions.	Reading and writing non-fiction texts. Number bases. Decryption.	Writing instructional texts. Creating texts for a defined audience. Shapes and position. Mathematical operations.	Writing and interpreting instructions. Shapes and position.	Non-fiction texts. Reading for meaning. Logic and mathematical operations.	Precise instructions and structure of texts. Logic and mathematical operations.
SMSC	Access to the internet for others. Who can create content for web? Ethical/ unethical uses for the web.	ASCII and limited character sets (English only). Use of the data.	How apps can gather data and affect users actions.	How different media can be used to change opinions.	Environmental impact of computers. Access to technology.	The effect that programs have on people: conscious and unconscious.

Year 9	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	
Areas of Study	Python programming with sequences of data Sequencing, variables, selection and loops. Planning and implementing programs.	Media – Animations Types of animation Models and colours Lights and cameras	Data science Defining data and big data Statistics and computers Legal data protection	Representations – going audio-visual Digital representation of images and audio Mixing media	Cybersecurity Ethical data protection Types of cyber attacks Network vulnerabilities	Physical computing Planning physical computing devices Connecting electrical components Programming external components.
Literacy Focus **Numeracy Focus**	Precise instructions and structure of texts. Logic and mathematical operations.	Writing and interpreting instructions. Structure of narrative stories. Shapes and position. Time.	Reading for meaning and exploring the author's intention. Understanding written arguments. Data and statistics.	Writing and interpreting instructions. Shapes and position and time. Graphs (x and y axis)	Reading for meaning. Persuasive texts. Graph theory and number bases.	Writing and following instructions. Recording actions. Writing clearly. Logic and mathematical operations.
SMSC	The effect that programs have on people: conscious and unconscious.	How different media can be used to change opinions and is influenced by cultural background.	Taking responsibility for data. How can/should data be used by society.	How different media can be used to change opinions and is influenced by cultural background.	"- Managing online information- Privacy and security"	Use of computing devices in society – privacy, availability and biases.

Year 10	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	Algorithms part 1 Computational thinking Representing algorithms Tracing algorithms	Algorithms part 2 Searches Sorts Implementing algorithms	Computer Systems 1 How a CPU works Computer storage	Computer systems 2 Computer systems Use of logic Assembly language	Data representation Using different number bases Representing text Representing images and sound	Programming Part 1 IDEs Variables, input and output Expressions, selection and logic
Literacy Focus **Numeracy Focus**	Accurate written language Mathematical operations and	Accurate written language Mathematical operations and	Reading for information Logic	Reading for information Logic	Writing as symbols Number systems and mathematical operations	Accurate writing Mathematical operations and logic.
SMSC	Impact of algorithms on society.	Impact of algorithms on society.	History of computer system design	Character sets and lack of space for other languages.	Storing data on computers. Character sets and lack of space for other languages.	Unseen impacts on programs.

Year 11	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	Programming Part 2 Loops and data validation Subroutines, functions and structure Strings, arrays and files	Cyber Security Types of cybercrime Designing defences Implementing solutions	Databases Types of database Where are databases? SQL	Networks Types of networks Network protocols Internet and WWW	Impacts of Technology The law and technology Cultural and environmental impacts Ethics of technology	Review of course through programming activities Physical computing using previous areas of study.
Literacy Focus **Numeracy Focus**	Accurate writing Mathematical operations and logic.	Reading for meaning networks	Writing concisely Types of numbers	Graphs and networks	Persuasive texts Large numbers statistics	Accurate writing Mathematical operations and logic.
SMSC	Unseen impacts on programs.	Criminal behaviour	Storing personal data	Use of networks	Impacts of technology and related ethics.	Unseen impacts on programs.

Post 16	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	Understanding cyber security	Assessing different methods to keep computers safe from cyber-attacks.	Practical ways to keep computers safe from cyber-criminals	Practical ways to keep humans safe from cyber-criminals	Understand the legal aspects for online business to keep data safe from cyber-criminals. GDPR	Understand the legal aspects for online business to keep data safe from cyber-criminals. Other laws.
Literacy Focus **Numeracy Focus**	Accurate written language Mathematical operations and logic	Accurate written language Mathematical operations and logic	Reading for information Logic	Reading for information Logic	Writing as symbols Number systems and mathematical operations	Accurate writing Mathematical operations and logic.
SMSC	Impact of cyber attacks on society.	Impact of cyber attacks on society.	The importance to society of preventing cyber attacks.	The importance of people being safeguarded.	Storing data on computers and the GDPR legal aspects.	Understanding the legal responsibilities of businesses.