Our Computing Intent

Our Computing curriculum is based on the National curriculum. At Christ Church we consider it essential that all our children gain the confidence and ability to prepare them for the challenges of a rapidly developing and changing technological world, we recognise the vital role of technology in supporting and inspiring learning across the curriculum and improving day to day administration and communication. Our intent is for all children to become confident and competent users of a range of ICT resources and applications to solve problems for a variety of purposes. To develop a Computing curriculum with learning embedded across the curriculum and discrete learning of skills where appropriate. For children and staff to have access to a range of quality, maintained ICT resources including new emerging technologies. For children, parents and staff to understand how to stay safe when using technology and to use technology appropriately. For all staff to continually improve and develop their ICT skills and to take a shared responsibility for developing ICT and promoting E-safety. To use ICT to promote links with parents, governors and the wider community.

Our Computing Implementation

We use Purple Mash to support our planning, preparation and resourcing of high-quality computing lessons.
Computing is taught each week for a minimum of one hour in KS1 and KS2. Each year group follows the Purple Mash computing schemes of work and ensure lessons are taught in the three areas of learning, computer science, information technology and digital literacy. These skills are continually revisited and developed throughout children's learning journey.
We acknowledge that (most) children have access to computing resources at home and feel that it is important that our Early years curriculum gives children access to a range of alternative technologies and that children understand how to use equipment safely and appropriately ready to access the computing National Curriculum.
Children have access to online tools to use at home including seesaw, bug club and purple mash.
Online safety is highlighted during online safety week and is revisited throughout the year.

A Christ Church Computer Scientist will ...

Talk of a love of computing, be excited and enthusiastic about their computing lessons.
Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
Become digitally literate – able to use, express themselves and develop ideas through information and communication technology.
Know how computing can be seen in everyday life and talk about how things work.
Ask questions to further their understanding of computing.
Understand how to keep safe online and know what impact their online profile can have on themselves and others.

Be eager to go to high school and learn more about computing to further their knowledge and understanding
Have aspirations to follow a career which is underpinned by computing knowledge and understanding.

Early Years			
Term	Knowledge	Skills	Vocabulary
Autumn	Remember rules without needing to be reminded. Explore how things work	I can follow classroom our classroom promises. I can use IWB safely and know when it is my turn	To be safe To be kind To be polite To be ready Promises Turn Taking
Spring	Know and talk about different factors that support helth and wellbeing- (screen time) Explore how things work.	I can follow our classroom promises. I can access computing equipment independently. I know how long to spend using computing equipment I can programme Beebots to follow simple instructions.	Instructions Independently Left, Right, Forward and Backwards
Summer	Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explore how things work.	I can follow our classroom promises. I can access computing equipment independently. I know how long to spend using computing equipment I can programme Beebots to follow simple instructions. I know how to access Purple Mash (Reception) with support.	Laptop Tablet Log in Password Username

Year 1
Autumn 1

Knowledge	Skills	Vocabulary	Key Questions
Introducing Seesaw. Learning to take photos and upload work. Introducing Purple Mash. Logging in and out.	To understand what a program is. To learn how to open, save and print. To be able to type own username and password to log in and out.	Programme Open File name Saving Print Printer Log in/ Log out Username Password	Where do we find Seesaw? How do we log in and out of Seesaw? What programmes do you know? How do you open a programme? What does it mean to take a picture? Why would you save your work? Why would you print your work? Where do we find Purple Mash? How do we log in and out of Purple Mash?

Year 1 – Autumn 2

Knowledge	Skills	Vocabulary	Key questions
Grouping and Sorting Pictograms	To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash To understand that data can be represented in picture format. To contribute to a class pictogram. To use a pictogram to record the results of an experiment.	Criteria Groups Sort Collect data Compare Data Pictogram Record Results Title	In what ways can we sort objects? How can data be collected? What types of data can be collected?

Year 1 – Spring 1

Knowledge	Skills	Vocabulary	Key questions

Online safety	To understand the importance of logging in and out safely. To learn how to search Purple Mash to find resources.	Username Password Log in/ Log out Private	What is a password and why should we keep them safe?
Questioning	To learn about data handling tools that can give more information than pictograms. To use yes/no questions to separate information. To construct a binary tree to identify items. To use 2Question (a binary tree database) to answer questions. To use a database to answer more complex search questions. To use the Search tool to find information.	Binary Tree Field Record Data Pictogram Search Database Question Sort	How does a Pictogram show information? How is information organised in a binary tree? How can a database help organise information?

Year 1 – Spring 2			
Knowledge	Skills	Vocabulary	Key Questions
Effective searching	To understand the terminology associated with searching. To gain a better understanding of searching on the Internet. To create a leaflet to help someone search for information on the Internet.	Digital footprint Network Webpage Domain Search engine World Wide Web Internet Web address Website	How can I search the Internet?

Year 1 – Summer 1			
Knowledge	Skills	Vocabulary	Key Questions
Spreadsheets	To know what a spreadsheet program looks like. To locate 2Calculate in Purple Mash.	Spreadsheet Cell Column	What does a spreadsheet look like?

Tech Outside of School	To enter data into spreadsheet cells. To use 2Calculate image tools to add clipart to cells. To use 2Calculate control tools: lock, move cell, speak and count To walk around the local community and find examples of where technology is used. To record examples of technology outside school.	Row Data Lock Cell Value Data Calculation Count tool Computer Technology	How could you use a spreadsheet to add up values? How could you use the count and speak tools? What is Technology? How can technology make our lives easier?

Year 1 – Summer 2			
Knowledge	Skills	Vocabulary	Key Questions
Animated Stories	To introduce e-books and the 2Create a Story tool. To add animation to a story. To add sound to a story, including voice recording and music the children have composed. To work on a more complex story, including adding backgrounds and copying and pasting pages. To share e-books on a class display board.	Animation eBook Sound Background Edit Sound effects Clipart gallery Font Text	What is 2Create a Story? What is an animated story? How can I make my story better?

By the end of year 1 pupils will…
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
Recognise common uses of information technology beyond school.
Use technology safely and respectfully, keeping personal information private.

Year 2

Year 2- Autumn 1

Knowledge	Skills	Vocabulary	Key Questions
Coding Online Safety	To understand what an algorithm is. To create a computer program using an algorithm. To create a program using a given design. To understand the collision detection event. To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence. To understand that different objects have different properties. To understand what different events do in code. To understand the function of buttons in a program. To understand and debug simple programs. To know how to refine searches using the Search tool. To have some knowledge and understanding about sharing more globally on the Internet. To understand how we should talk to others in an online situation. To open and send simple online communications in the form of email. To understand that information put online leaves a digital footprint or trail. To identify the steps that can be taken to keep personal data and hardware secure.	Action Collision detection Button Command Event Algorithm Bug and Debug Background Click Event Execute Attachment Filter Private Information Digital footprint Search Personal Information Secure Sharing	What is coding? Why is it useful to design before coding? How can you make characters move in a 2Code program? What is a password and why should we keep them safe? What is a digital avatar? Where is my work stored on Purple Mash?

Year 2 – Autumn 2

Knowledge	Skills	Vocabulary	Key Questions
Spreadsheets	To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine. To learn how to copy and paste in 2Calculate. To use the totalling tools. To use a spreadsheet for money calculations. To use the 2Calculate equals tool to check calculations. To use 2Calculate to collect data and produce a graph.	Block Graph Copy Drag Label Cell Count tool Equals Row Column Data Equals tool	Why would you copy and paste when using a spreadsheet? How could a spreadsheet help you when you are planning some shopping? Look at the graph made in 2Calculate showing the class' favourite pets. Which is the most popular?

Year 2 – Spring 1

Knowledge	Skills	Vocabulary	Key Questions
Questioning	To learn about data handling tools that can give more information than pictograms. To use yes/no questions to separate information. To construct a binary tree to identify items. To use 2Question (a binary tree database) to answer questions. To use a database to answer more complex search questions. To use the Search tool to find information.	Binary Tree Field Record Data Pictogram Search Database Question Sort	How does a Pictogram show information? How is information organised in a binary tree? How can a database help organise information?
Effective Searching	To understand the terminology associated with searching. To gain a better understanding of searching on the Internet. To create a leaflet to help someone search for information on the Internet.	Digital footprint Network	How can I search the Internet?

		Webpage Domain Search engine World Wide Web Internet Web address Website	

Year 2 – Spring 2			
Knowledge	Skills	Vocabulary	Key Questions
Making Music	To make music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence. To edit and refine composed music. To think about how music can be used to express feelings and create tunes which depict feelings. To upload a sound from a bank of sounds into the Sounds section. To record and upload environmental sounds into Purple Mash. To use these sounds to create tunes in 2Sequence.	Beat Tune Speed Compose Sound Effect Tempo Note Sound track Volume	What is meant by digital music? How can I change how my music sounds? What is it meant by the tempo of the music?

Year 2 – Summer 1			
Knowledge	Skills	Vocabulary	Scientific enquiry
Creating Pictures	To learn the functions of the 2Paint a Picture tool.	Art Pallette Style	What are the main features of Impressionism?

	To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir).	Fill	
		Pointillism	What are the main features of Pointillism?
	To recreate Pointillist art and look at the work of pointillist artists such as Seurat.	Impressionism	
		Surrealism	
	To learn about the work of Piet Mondrian and recreate the style using the lines template.		What are the main features of Surrealism?
	To learn about the work of William Morris and recreate the style using the patterns template.		
	To explore surrealism and eCollage.		

Year 2 – Summer 2			
Knowledge	Skills	Vocabulary	Scientific enquiry
Presenting Ideas	To explore how a story can be presented in different ways.	eBook	What do we need to think about when planning a presentation?
		Mind map	
		Presentation	
	To make a quiz about a story or class topic.	Fact file	
		Node	Why should I plan out my presentation?
	To make a fact file on a non-fiction topic.	Quiz	
		Fiction	
	To make a presentation to the class	Non Fiction	

By the end of year 2 pupils will…
Begin to understand what algorithms are and how to create and debug simple programs.
Begin to use logical reasoning to predict the behaviour of simple programs.
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
Recognise common uses of information technology beyond school.
Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Year 3			
Year 3- Autumn 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Coding	To understand what a flowchart is and how flowcharts are used in computer programming. To understand that there are different types of timers and select the right type for purpose. To understand how to use the repeat command. To understand the importance of nesting. To design and create an interactive scene.	Action Background Click Event Command Alert Bug Code Debug/Bugging Algorithm Button Collision Detection Event Event Nesting Properties Sequence Turtle Object Flow Chart Input Object Repeat Test Implement Interval Predict Run Scene Timer	Why is it useful to use a flowchart to design a computer program? What does repeat mean in computer programming? What is the difference between 'timer after' and 'timer every'?
Internet Safety	To know what makes a safe password. To learn methods for keeping passwords safe. To understand how the Internet can be used in effective communication. To understand how a blog can be used to communicate with a wider audience. To consider the truth of the content of websites. To learn about the meaning of age restrictions symbols on digital media and devices.		What is a password and why should we keep them safe? Is everything I read on the Internet true? How do I know if I am old enough to play a computer game?

		Appropriate Password Spoof Vlog Blog Personal Information Reputable Source Reliable Source Website Inappropriate Internet Permission Verify	

Year 3 – Autumn 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Spreadsheets	To use the symbols more than, less than and equal to, to compare values. To use 2Calculate to collect data and produce a variety of graphs. To use the advanced mode of 2Calculate to learn about cell references.	Data Pie chart Less than More than Spreadsheet Cell address Columns Quiz tool Table Rows Equal tool Spin tool	Explain how you would collect data to find out children's favourite school subjects. What sort of graph would you create? How can you make a 3 times table machine using the spin tool? Explain how you would locate a cell in the advanced mode?

Year 3 – Spring 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Touch Type	To introduce typing terminology. To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. To practise typing with the left and right hand. To think about different methods of communication. To open and respond to an email using an address book.	Posture Keys Spacebar Typing Address book CC	Why should I have a good posture at the computer? Why should I type certain keys with certain fingers?
Email	To learn how to use email safely. To add an attachment to an email. To explore a simulated email scenario	Email Personal information Attachment Communication Inbox Save to draft Bcc Compose Password Trusted Contact	What is email? What should I do if I receive an email that makes me upset or scared? What information can I send in an email?

Year 3 – Spring 2			
Knowledge	**Skills**	**Vocabulary**	**Scientific enquiry**
Branching Databases	To sort objects using just 'yes' or 'no' questions. To complete a branching database using 2Question. To create a branching database of the children's choice.	Binary Database Branching Database Data Debugging	What is meant by data? What is a database? What is a branching database?

Year 3 – Summer 1			
Knowledge	**Skills**	**Vocabulary**	**Scientific enquiry**

Simulations	To consider what simulations are. To explore a simulation. To analyse and evaluate a simulation	Analysis Modelling Simulation Evaluation Decision	What is a computer simulation? What kind of simulations are there? Are there any problems with simulations?
Graphing	To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form.	Axis Data Row Chart Graph Sorting Column Investigation Tally Chart	What is a graph? What are the frame lines on the graph called? What different kinds of graphs are there?

Year 3 – Summer 2			
Knowledge	**Skills**	**Vocabulary**	**Scientific enquiry**
Presenting	To understand the uses of PowerPoint. To create a page in a presentation. To add media to a presentation. To add animations to a presentation. To add timings to a presentation. To use the skills learnt to design and create an engaging presentation.	Animation Layer Slide Transition Border properties Media Slideshow Font formatting Presentation Text box	What is a presentation program used for? How do you add a transition to a presentation? What features can you use to make a presentation more engaging?

By the end of year 3 pupils will…

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
Begin to create and debug simple programs.
Use logical reasoning to predict the behaviour of simple programs.
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
Recognise common uses of information technology beyond school.
Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Year 4			
Year 4- Autumn 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Coding	To begin to understand selection in computer programming. To understand how an IF statement works. To understand how to use co-ordinates in computer programming. To understand the 'repeat until' command. To understand how an IF/ELSE statement works. To understand what a variable is in programming. To use a number variable. To create a playable game.	Code blocks Design Repeat until Flowchart Predict If/ Else Statement Prompt Properties Timer Selection Sequence Variable	Explain the stages of the design, code, test, debug coding process How can variables and if/else statements be useful when coding programs with selection? What does selection mean in coding and how can you achieve this in 2Code? What is the difference between the different object types in 2Code Gibbon level?

Year 4 – Autumn 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Animation	To discuss what makes a good animated film or cartoon. To learn how animations are created by hand.	Animation Online Skinning FPS (Frames Per Second)	What is an animation? What is meant by onion skinning?

	To find out how animation can be created in a similar way using the computer. To learn about onion skinning in animation. To add backgrounds and sounds to animations. To be introduced to 'stop motion' animation. To share animation on the class display board and by blogging	Pause Frame Stop motion	What is meant by stop motion animation?

Year 4 – Spring 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Online Safety	To understand how children can protect themselves from online identity theft. To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. To identify the risks and benefits of installing software including apps. To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. To identify the positive and negative influences of technology on health and the environment. To understand the importance of balancing game and screen time with other parts of their lives.	Adfly Collaborate Digital Footprint Plagiarism Spam Attachment Cookies Malware Ransomware Viruses Citation Copyright Phishing Smart Rules Watermark	What is meant by a digital footprint? What is SPAM? What is meant by plagiarism?

Year 4 – Spring 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Spreadsheets	To format cells as currency, percentage, decimal to different decimal places or fraction.	Row Column	How would you add a formula so that the cell shows the percentage score for a test?

	To use the formula wizard to calculate averages. To combine tools to make spreadsheet activities such as timed times tables tests. To use a spreadsheet to model a real life situation. To add a formula to a cell to automatically make a calculation in that cell.	Average Spreadsheet Budget Formula Chart Date Format cell Percentage Timer Decimal place Formular Wizard Place value Equals tool Line graph Random number tool Spin tool	Which tools would you use to create a timed times tables test in 2Calculate? Give an example of the data that could be best represented by a line graph. Explain what a spreadsheet model of a real-life situation is and what it can be used for?

Year 4 – Summer 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Effective Searching	To locate information on the search results page. To use search effectively to find out information. To assess whether an information source is true and reliable	Balanced view Easter Eggs Internet Keywords Reliability Results Page Search Engine	What is a search engine?

Year 4 – Summer 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Logo	To learn the structure of the coding language of Logo.	Debugging	What is Logo?

| | To input simple instructions in Logo.
Using 2Logo to create letter shapes.
To use the Repeat function in Logo to create shapes.
To use and build procedures in Logo. | LOGO Commands
Pen Up
Grid
Multi Line Mode
Prediction
LOGO
Pen Down
Procedure
Repeat
Run Speed
SETPS
SETPC | |

By the end of year 4 pupils will…

To begin to design, write and debug programs that accomplish specific goals.

Use sequence, selection, and repetition in programs.

Use logical reasoning to explain how some simple algorithms work.

Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.

Use search technologies effectively and to understand that some information may not be reliable.

Select and use a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting data and information.

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Year 5			
Year 5 - Autumn 1			
Knowledge	Skills	Vocabulary	Key Questions

| Internet Safety | 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.
To ensure reliability through using different methods of communication. | Citation
Copyright
Identity Theft
PEGI ratings
Password
Reliable Source
Collaborate
Creative Commons Licence
Malware
Personal Information
Smart Rules
Communication
Encrypt
Ownership
Phishing Spoof
Validity | Who do I tell if I see anything online that makes me upset or scared?

Why are passwords so important?

Why is it important to reference sources in my work? |

Year 5 – Autumn 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Spreadsheets	To use formulae within a spreadsheet to convert measurements of length and distance. To use the count tool to answer hypotheses about common letters in use. To use a spreadsheet to model a real life problem. To use formulae to calculate area and perimeter of shapes. To create formulae that use text variables. To use a spreadsheet to help plan a school cake sale.	Row Date Advance mode Formular Wizard Spreadsheet Format How Many Tool Variable Columns Formular Formular bar Totalling tool.	How would you add a formula so that the cell shows the product of two other cells? What would you use in 2Calculate to have a cell that automatically calculates the number of days since a certain date? Explain what a spreadsheet model of a real-life situation is and what it can be used for?

Year 5 – Spring 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Modelling	To be introduced to 2Design and Make and the skills of computer aided design. To explore the effect of moving points when designing. To design a 3D Model to fit certain criteria. To refine and print a model.	2D 3D CAD Pattern Fill Design Brief Points 3D printing Net Template	What are the different view of an object available in 2Design and Make? How can the objects designed in 2Design and Make be turned into 3D objects? How is CAD software used in industry? Give some examples.

Year 5– Spring 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Databases	To learn how to search for information in a database. To contribute to a class database. To create a database around a chosen topic	Arrange Collaborative Field Database Report Sort Avatar Date Group Statistics Chart Database Record Search	What is a database? Why is the collaborative feature important? In what ways can I sort information in a database?

Year 5 – Summer 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Word Processing Microsoft Word	To know what a word processing tool is for. To add and edit images to a word document. To know how to use word wrap with images and text. To change the look of text within a document. To add features to a document to enhance its look and usability. To use tables within MS Word to present information. To introduce children to templates. To consider page layout including heading and columns	Bulleted List Hyperlink Cursor Copy and Paste Formatting Word Processing Tool Cap Locks Copywrite Document Merge Cells Text Wrapping Caption Creative Commons Font Page Orientation Readability Word Art	What is a word processing tool used for? What features can you use to make a document more readable? How do you successfully add an image to a document?

Year 5 – Summer 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Game creator	To plan a game. To design and create the game environment. To design and create the game quest. To finish and share the game. To self and peer evaluate.	Evaluation Instruction Scene Feedback Promotion Screenshot Image Quest Texture	What is the 2DIY3D tool on Purple Mash? What makes a good computer game? Why is it important to continually evaluate your game?

		Theme	

By the end of year 5 pupils will…

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Year 6			
Year 6 - Autumn 1			
Knowledge	**Skills**	**Vocabulary**	**Scientific enquiry**
Internet Safety	To identify benefits and risks of mobile devices broadcasting the location of the user/device. To identify secure sites by looking for privacy seals of approval. To identify the benefits and risks of giving personal information. To review the meaning of a digital footprint. To have a clear idea of appropriate online behaviour. To begin to understand how information online can persist. To understand the importance of balancing game and screen time with other parts of their lives. To identify the positive and negative influences of technology on health and the environment.	Data Analysis Location Sharing Phishing Digital Footprint Password Print screen Secure Website Inappropriate PEGI Rating Screen Time Spoof	Why do I need to be aware of the dangers of being online? What is meant by my digital footprint? Why is it important to think about how much time use a screen for?

Year 6 – Autumn 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**

Coding	To design a playable game with a timer and a score. To plan and use selection and variables. To understand how the launch command works. To use functions and understand why they are useful. To understand how functions are created and called. To use flowcharts to create and debug code. To create a simulation of a room in which devices can be controlled. To understand how user input can be used in a program. To understand how 2Code can be used to make a text-adventure game	Action Co-ordinates Execute /Run Algorithm Event Command Decomposition Debug/Debugging Flowchart Function Object Procedure Selection Tab Input Properties Sequence Simulation Timer Launch Command Output Predict Repeat Repeat Until Variable	How can you use Tabs in 2Code Gorilla? What is a function in coding? Give an example that you have used in 2Code Gorilla. In 2Code Gorilla, how can a program receive user input?

Year 6 – Spring 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Spreadsheets	To use a spreadsheet to investigate the probability of the results of throwing many dice. To use a spreadsheet to calculate the discount and final prices in a sale.	Auto Fill Chart	What is a spreadsheet used for?

	To use a spreadsheet to plan how to spend pocket money and the effect of saving money. To use a spreadsheet to plan a school charity day to maximise the money donated to charity.	Conditional formatting Formula Horizontal Axis Range Vertical Axis Cell Reference Computational Model Delimiter Graph Text Wrapping	How do you carry out a multiplication calculation? How does using the SUM function save time?

Year 6 – Spring 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Binary	To examine how whole numbers are used as the basis for representing all types of data in digital systems. To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems). To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics.	**Words used to describe numbers of bits and the computer memory space used:** **Nibble -** 4 bits **Byte -** 8 bits. **Kilobyte (KB)** - 1024 bytes **Megabyte (MB)** - 1024 KB **Gigabyte (GB)** - 1024 MB **Tetrabyte (TB)** - 1024 GB Base2 Bit Digit Integer Switch Base10 Transistor	How does binary relate to the programs that you use or create? How does binary relate to computer memory? How would you write the numbers 0 to 10 in binary?

The Christ Church, Walshaw Computing Curriculum

		Machine Code	
		Megabyte	
		Nibble	
		Terabyte	
		Variable	

Year 6 – Summer 1			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Text Adventures	To find out what a text adventure is. To use 2Connect to plan a story adventure. To make a story-based adventure using 2Create a Story. To introduce an alternative model for a text adventure which has a less sequential narrative. To use written plans to code a map-based adventure in 2Code.	Text Based Adventure Bug/ Debugging Sprite Selection Function	What is a text based adventure? Why is it important to plan a text based adventure?

Year 6 – Summer 2			
Knowledge	**Skills**	**Vocabulary**	**Key Questions**
Quizzing	To create a picture-based quiz for young children. To learn how to use the question types within 2Quiz. To explore the grammar quizzes. To make a quiz that requires the player to search a database. To make a quiz to test your teachers or parents.	Audience Audio Case Sensitive Clone Cloze Preview Quiz	What factors do you need to consider when creating a quiz? Name three question types in 2Quiz. Apart from the questions, what else does a quiz need to contain?

By the end of year 6 pupils will…

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.