Hillside Primary School
Computing Curriculum 2024-25 – Long Term Plan

Term & Focus	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1A – Online Safety Lesson 1	Online Safety Lesson (ELIM SoW) **Autumn Lesson A**	Online Safety Lesson (ELIM SoW) **Autumn Lesson A**	Online Safety Lesson (ELIM SoW) **Autumn Lesson A**	Online Safety Lesson (ELIM SoW) **Autumn Lesson A**	Online Safety Lesson (ELIM SoW) **Autumn Lesson A**	Online Safety Lesson (ELIM SoW) **Autumn Lesson A**
Autumn 1A - Main Curriculum Coverage	Computing Systems & Networks – Technology Around Us (Teach Computing)	Computing Systems & Networks – IT Around Us (Teach Computing)	Computing Systems & Networks – Connecting Computers (Teach Computing)	Computing Systems & Networks – The Internet (Teach Computing)	Computing Systems & Networks – Systems and Searching (Teach Computing)	Computing Systems & Networks – Communication and Collaboration (Teach Computing)
Autumn 1B – Online Safety Lesson 1	Online Safety Lesson (ELIM SoW) **Autumn Lesson B**	Online Safety Lesson (ELIM SoW) **Autumn Lesson B**	Online Safety Lesson (ELIM SoW) **Autumn Lesson B**	Online Safety Lesson (ELIM SoW) **Autumn Lesson B**	Online Safety Lesson (ELIM SoW) **Autumn Lesson B**	Online Safety Lesson (ELIM SoW) **Autumn Lesson B**
Autumn 1B – Main Curriculum Coverage	N/A	N/A	Creating Media – Stop Frame Animation (Teach Computing)	Creating Media – Audio Production (Teach Computing)	Creating Media – Video Production (Teach Computing)	Creating Media – Web-Page Creation (Teach Computing)
Spring 2A - Online Safety Lesson 1	Online Safety Lesson (ELIM SoW) **Spring Lesson A**	Online Safety Lesson (ELIM SoW) **Spring Lesson A**	Online Safety Lesson (ELIM SoW) **Spring Lesson A**	Online Safety Lesson (ELIM SoW) **Spring Lesson A**	Online Safety Lesson (ELIM SoW) **Spring Lesson A**	Online Safety Lesson (ELIM SoW) **Spring Lesson A**
Spring 2A – Main Curriculum Coverage	Programming A – Moving a Robot (Teach Computing)	Programming A – Robot Algorithms (Teach Computing)	Programming A – Sequencing Sounds (Teach Computing)	Programming A – Repetition in Shapes (Teach Computing)	Programming A – Selection in Physical Computing (Teach Computing)	Programming A – Variables in Games (Teach Computing)
Spring 2B - Online Safety Lesson 1	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**
Spring 2B – Main Curriculum Coverage	N/A	N/A	Data & Information – Branching Databases (Teach Computing)	Data & Information – Data Logging (Teach Computing)	Data & Information – Flat File Databases (Teach Computing)	Data & Information – Introduction to Spreadsheets (Teach Computing)
Summer 3A – Online Safety Lesson 1	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**	Online Safety Lesson (ELIM SoW) **Spring Lesson B**
Summer 3A – Main Curriculum Coverage	Creating Media – Digital Writing (Teach Computing)	Creating Media – Digital Music (Teach Computing)	Creating Media – Desktop Publishing (Teach Computing)	Creating Media – Photo Editing (Teach Computing)	Creating Media – Introduction to Vector Graphics (Teach Computing)	Creating Media – 3D Modelling (Teach Computing)
Summer 3B – Online Safety Lesson 1	Online Safety Lesson (ELIM SoW) **Summer Lesson B**	Online Safety Lesson (ELIM SoW) **Summer Lesson B**	Online Safety Lesson (ELIM SoW) **Summer Lesson B**	Online Safety Lesson (ELIM SoW) **Summer Lesson B**	Online Safety Lesson (ELIM SoW) **Summer Lesson B**	Online Safety Lesson (ELIM SoW) **Summer Lesson B**

Summer 3B – Main Curriculum Coverage	N/A	N/A	Programming B – Events and Actions in Programs (Teach Computing)	Programming B – Repetition in Games (Teach Computing)	Programming B – Selection in Quizzes (Teach Computing)	Programming B – Sensing Movement (Teach Computing)

Computing in EYFS

The EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than subject areas. The aim of this document is to help subject leaders to understand how the skills taught across EYFS feed into National Curriculum subjects.

This document demonstrates which statements from the 2020 Development Matters are prerequisite skills for computing within the National Curriculum. The table below outlines the most relevant statements taken from the Early Learning Goals in the EYFS statutory framework and the Development Matters age ranges for Three and Four-Year-Olds and Reception to match the programme of study for computing.

The most relevant statements for computing are taken from the following areas of learning:

- *Personal, Social and Emotional Development*
- *Physical Development*
- *Understanding the World*
- *Expressive Arts and Design*

In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately, referring to the Characteristics of Effective Teaching and Learning.

These are: **playing and exploring** *– children investigate and experience things, and 'have a go';* **active learning** *– children concentrate and keep on trying if they encounter difficulties, and enjoy their achievements for their own sake;* **creating and thinking critically** *– children have and develop their own ideas, make links between ideas, and develop strategies for doing things.*

In addition, the Prime Areas of Learning (Personal, Social and Emotional Development, Communication and Language and Physical Development) underpin and are an integral part of children's learning in all areas.

Computing in EYFS – An Overview

Three and Four Year Olds (Nursery)	Personal, Social and Emotional Development		• Remember rules without needing an adult to remind them.
	Physical Development		• Match their developing physical skills to tasks and activities in the setting.
	Understanding the World		• Explore how things work.
Reception	Personal, Social and Emotional Development		• Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'.
	Physical Development		• Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
	Expressive Arts & Design		• Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG **On Track- end of year expectations**	Personal, Social and Emotional Development	Managing Self	• Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Arts and Design	Creating with Materials	• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

How we achieve this throughout the year

We provide the children with access to different types of technology daily in our role play area (cameras, phones, music players etc.). We have set focused activities using other technology and will often do a small input on how to use this and then allow the children to access this independently over the week (such as robots and iPads). We also use the interactive whiteboard in our room for a variety of activities, input sessions and research purposes, allowing the children to learn how to use the computer and whiteboard and how to stay safe whilst doing so.

Focused computing activities:
-robot mouse to create a route to the local library
-google to research different subjects that we would like more information on.
-Google maps/earth to research about other continents and places (linking to Summer holidays and world cup)
-IPad to take pictures of their learning
-Keyboard to type out phonics words and sentences (get them used to typing on a keyboard ready for KS1)

Vocabulary	**Examples of Supportive Texts**	**Assessment**
Technology, safety, controls, camera, computer, button, Keyboard, IPad, save, Robot, Printer, Zoom, research, App, Google, Emoji,	Chicken Clicking- Jeanne Willis Once upon a time online – David Bedford Little Miss Inventor and the Robots –Roger Hargreaves	• Can children talk about what we use technology for? • Can children use technology safely? • Can children use technology independently? • How do children choose to use different types of technology and why?

Hillside Primary School

Online Safety Overview – To be taught half-termly (lesson 1).

ELIM's Online Safety Resources can be accessed via: eLIM EdTech (google.com). Class Teachers need to register their nsix email address. Once registered, enter the short code (sent via email) to access resources. Once logged on, scroll down the webpage and click 'ActiveBytes.' Materials for the Online Safety lessons are listed on the ActiveBytes page.

Year 1 Online Safety Lessons Overview – ELIM

Year	Autumn 1A	Autumn 1B	Spring 2A	Spring 2B	Summer 3A	Summer 3B
1	**Year 1 Online Safety Lessons**					
	'I am Kind and Responsible' **Evaluating Content, Reporting/Supporting** **Autumn A Lesson** **Lesson Outcomes:** • I tell a trusted adult what I want to use a device for. • I use links to websites to find information. • I show a trusted adult when something worrying or unexpected happens when I am using a device. • I am careful about the icons I click or tap when I use technology devices. **PSHE Links:** Rules for keeping safe. Who to go to if they are worried.	'I am Kind and Responsible' **Kindness** **Autumn B Lesson** **Lesson Outcomes:** • I explain why it is important to be kind and polite. • I agree and use sensible rules to keep me safe when I use technology. **PSHE links:** How to resist teasing or bullying, if they experience or witness it. Whom to go to and how to get help.	'I am Safe and Secure' **Relationships, Privacy and Protecting Devices** **Spring A Lesson** **Lesson Outcomes:** • I use different technologies, with a trusted adult, to communicate responsibility with others. • I know that something I put online can be seen by others. • I am careful about the icons I click or tap when I use technology devices. **PSHE links:** Ways of keeping physically and emotionally safe online, responsible use of ICT.	'I am Safe and Secure' **Privacy** **Spring B Lesson** **Lesson Outcome:** • I know what my personal information is and keep it private. **PSHE Links:** Ways of keeping physically and emotionally safe online.	'I am healthy' **Age appropriate** **Summer A Lesson** **Lesson Outcomes:** • I select from a list of apps, games and websites that a trusted adult gives me. • I use links to websites to find information. • I am careful about the icons I click or tap when I use technology devices. **PSHE Links:** Ways of keeping emotionally safe. Recognise what they like. Make real, informed choices to improve emotional health.	'I am healthy' **Lifestyle choices** **Summer B Lesson** **Lesson Outcome:** • I use devices for the time I am allowed and tell you what else I like doing. **PSHE Links:** Make real, informed choices to improve physical and emotional health.

Year 2 Online Safety Lessons Overview – ELIM

Year	Autumn 1A	Autumn 1B	Spring 2A	Spring 2B	Summer 3A	Summer 3B
2	**Year 2 Online Safety Lessons**					
	'I am Kind and Responsible' **Reporting/Supporting and Evaluating** **Autumn A Lesson** **Lesson Outcomes:** • I tell a trusted adult when something worrying or unexpected happens when I am using a device. • I agree and use sensible rules to keep me safe when I use technology. • I know that not all information online is true. **PSHE Links:** Rules for keeping safe. Who to go to if they are worried.	'I am Kind and Responsible' **Kindness** **Autumn B Lesson** **Lesson Outcomes:** • I talk about why it is important to be kind and polite online and in real life. • Before I use a device, I talk to a trust adult about how I will keep myself safe. **PSHE Links:** How to resist teasing or bullying, if they experience or witness it. Whom to go to and how to get help.	'I am Safe and Secure' **Relationships and Privacy** **Spring A Lesson** **Lesson Outcomes:** • I know that not everyone is who they say they are online. • I explain why I need to keep my passwords and personal information private. • I tell a trusted adult when something worrying or unexpected happens when I am using a device. **PSHE Links:** Ways to keep physically and emotionally safe online, responsible use of ICT.	'I am Safe and Secure' **Protecting Devices** **Spring B Lesson** **Lesson Outcomes:** • I am careful about the icons I click or tap when I use technology devices. • I identify some possible risks to devices. • I discuss with an adult how I will keep myself safe before I use a device. • I tell a trusted adult when something worrying or unexpected happens when I am using a device. **PSHE Links:** Responsible use of ICT.	'I am healthy' **Age appropriate** **Summer A Lesson** **Lesson Outcome:** • I describe the things I enjoy about age--appropriate apps, games and websites I am guided to use. **PSHE Links:** Recognise what they like. Make real, informed choices to improve emotional health.	'I am healthy' **Lifestyle choices** **Summer B Lesson** **Lesson Outcomes:** • I take a break when I have been using a device for too long. • I do a range of other activities when I am not using devices. **PSHE Links:** Make real, informed choices to improve physical and emotional health.

Year 3 Online Safety Lessons Overview – ELIM

Year	Autumn 1A	Autumn 1B	Spring 2A	Spring 2B	Summer 3A	Summer 3B
3	**Year 3 Online Safety Lessons**					
	'I am Kind and Responsible' **Agreement / Kindness** **Autumn A Lesson** **Lesson Outcomes:** • I contribute to shared online safety rules and use them to make good choices. • I use the safety features of apps, games and websites as well as reporting concerns to an adult. **PSHE Links:** Why and how rules and laws that protect them and others are made and enforced. The responsible use of mobile phones: (time limits, use of passcode, turning it off at night etc).	'I am Kind and Responsible' **Kindness / Evaluating Content/ Reporting & Supporting** **Autumn B Lesson** **Lesson Outcomes:** • I describe the ways that people get bullied when they use different technologies and consider what I post. • I use search tools to find appropriate information and decide whether I can trust it. **PSHE Links:** To realise the nature and consequences of bullying and aggressive behaviours, how to respond and ask for help.	'I am Safe and Secure' **Privacy** **Spring A Lesson** **Lesson Outcomes:** • I use a secure password and explain why they are important. • I protect my personal information when I do different things online. **PSHE Links:** The importance of protecting personal information, including passwords and addresses.	'I am Safe and Secure' **Privacy / Relationships** **Spring B Lesson** **Lesson Outcome:** • I participate safely and responsibly in a secure online community. **PSHE Links:** How they can help the people who are responsible for helping them stay healthy and safe.	'I am healthy' **Lifestyle choices** **Summer A Lesson** **Lesson Outcomes:** • I identify images which have been digitally altered. • I identify adverts online, including those within Google searches. **PSHE Links:** How to make informed choices.	'I am Healthy' **Age-appropriate / Lifestyle Choices** **Summer B Lesson** **Lesson Outcomes:** • I use age-appropriate apps, games and websites from a list I have agreed with others. • I make good choices about when and why I use devices. **PSHE Links:** Safe user habits (time limits, use of passcode, turning it off at night etc.).

Year 4 Online Safety Lessons Overview – ELIM

Year	Autumn 1A	Autumn 1B	Spring 2A	Spring 2B	Summer 3A	Summer 3B
4	**Year 4 Online Safety Lessons**					
	'I am Kind and Responsible' **Agreement** **Autumn A Lesson** **Lesson Outcomes:** • I contribute to shared e-safety rules and use them to make good choices. • I use a range of strategies to protect myself and my friends from harm online, including reporting concerns to a trusted adult. • I comment positively and respectfully when I use different technologies. **PSHE Links:** To recognise and manage 'dares.' Why and how rules and laws that protect them and others are made and enforced.	'I am Kind and Responsible' **Evaluating Content** **Autumn B Lesson** **Lesson Outcome:** • I identify key words to use when searching safely online and think about the reliability of information I find. **PSHE Links:** To recognise how images in the media (and online) do not always reflect reality.	'I am Safe and Secure' **Privacy / Relationships** **Spring A Lesson** **Lesson Outcomes:** • I know that anything I share online will stay there to be seen and used by others. • I make safe choices when using technology to communicate responsibly with others. **PSHE Links:** The importance of protecting personal information, including passwords, addresses and the distribution of images of themselves and others.	'I am Safe and Secure' **Protecting devices** **Spring B Lesson** **Lesson Outcome:** • I explain why I need to ask a trusted adult before downloading files and games from the internet. **PSHE Links:** Safe user habits (use of passcode). What is and is not appropriate to ask for or share.	'I am Healthy' **Self-image / Lifestyle Choices** **Summer A Lesson** **Lesson Outcome:** • I explain how digitally altered images in the media make me feel. • I ignore or close adverts that appear on my device and explain my reasons. **PSHE Links:** To recognise how images in the media (and online) do not always reflect reality and can affect how people feel about themselves.	'I am Healthy' **Age-appropriate / Lifestyle Choices** **Summer B Lesson** **Lesson Outcomes:** • I choose apps, games and websites that are appropriate for my age and explain my reasons to my friends. • I tell my friends about the sensible choices I make about when and why I use devices. **PSHE Links:** What positively and negatively affects their physical, mental and emotional health. About taking care of their body.

Year 5 Online Safety Lessons Overview – ELIM

Year	Autumn 1A	Autumn 1B	Spring 2A	Spring 2B	Summer 3A	Summer 3B
5	**Online Safety Lesson**					
	'I am Kind and Responsible' **Evaluating Content/Agreement** **Autumn A Lesson** **Lesson Outcomes:** • I use a search engine to find and evaluate different types of information. • I contribute to shared rules and use them to support myself and others when we use technology. **PSHE Links:** To explore and critique how the media present information.	'I am Kind and Responsible' **Kindness** **Autumn B Lesson** **Lesson Outcomes:** • I always communicate kindly and respectfully and can describe the impact where this does not happen. • I contribute to shared rules and use them to support myself and others when we use technology. • I explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to a trusted adult. **PSHE Links:** To realise the nature and consequences of discrimination, teasing, bullying.	'I am Safe and Secure' **Privacy** **Spring A Lesson** **Lesson Outcome:** • I explain the risks of sharing too much about myself online. **PSHE Links:** Recognise, predict and assess risk.	'I am Safe and Secure' **Relationships** **Spring B Lesson** **Lesson Outcome:** • I compare my online and face-to-face relationships. **PSHE Links:** Pressure to behave in a particular way can come from a variety of sources.	'I am healthy' **Self-image** **Summer A Lesson** **Lesson Outcome:** • I know the reasons why images are altered. **PSHE Links:** To explore and critique how the media present information.	'I am Healthy' **Age-appropriate / Lifestyle Choices** **(YR4 Lesson)** **Summer B Lesson** **Lesson Outcomes:** • I choose apps, games and websites that are appropriate for my age and explain my reasons to my friends. • I tell my friends about the sensible choices I make about when and why I use devices. **PSHE Links:** What positively and negatively affects their physical, mental and emotional health. About taking care of their body.

Year 6 Online Safety Lessons Overview – ELIM

Year	Autumn 1A	Autumn 1B	Spring 2A	Spring 2B	Summer 3A	Summer 3B
6	**Online Safety Lesson**					
	'I am kind and responsible' **Reporting / Supporting/ Agreement** **Autumn A Lesson** **Lesson Outcomes:** • I support my friends to protect themselves and make good choices online, including reporting concerns to an adult. • I contribute to shared rules and use them to support myself and others when we use technology. • I explain why lots of people sharing the same opinions or beliefs online does not make these opinions or beliefs true. • I talk about the way search results are selected and ranked and check the reliability of websites I visit. **PSHE Links:** Strategies for keeping safe.	'I am Kind and Responsible' **Kindness** **Autumn B Lesson** **Lesson Outcome:** • I always communicate kindly and respectfully and work with. others to help everyone enjoy their use of technology. **PSHE Links:** To realise the consequences of anti-social and aggressive behaviours such as bullying and discrimination of individuals and communities.	'I am Safe and Secure' **Privacy** **Spring A Lesson** **Lesson Outcomes:** • I check the information about me online and know that some of it can be uploaded by others. • I consider terms and conditions and adjust privacy settings to maintain control of my personal information. **PSHE Links:** Recognise, predict and assess risk.	'I am Safe and Secure' **Relationships** **Spring B Lesson** **Lesson Outcome:** • I explain how to communicate safely and responsibly with people I only know online. **PSHE Links:** To recognise, predict and assess risks in different situations and decide how to manage them responsibly to use basic techniques for resisting pressure to do something dangerous, unhealthy, that makes them uncomfortable, anxious or that they believe to be wrong.	'I am healthy' **Self-image** **Summer A Lesson** **Lesson Outcomes:** • I explain how images in the media affect how we feel about ourselves. • I explain how my data is used to target adverts towards me. **PSHE Links:** To recognise how images in the media do not always reflect reality and can affect how people feel about themselves. To reflect on and celebrate their achievements, identify their strengths, areas for improvement, set high aspirations and goals.	'I am Healthy' **Lifestyle Choices** **Summer B Lesson** **Lesson Outcome:** I support my friends in evaluating their use of games and devices and make good choices for myself. **PSHE Links:** To make informed choices

Hillside Primary School

Main Computing Curriculum Coverage Overview – Teach Computing (taught the remainder of every term).

At Hillside Primary School, we follow 'Teach Computing' to deliver our main Computing Coverage. Each half-term has a key focus, which is followed throughout KS1and KS2. See table below for further information. Teach Computing planning and resources can be downloaded from the Teach Computing website: https://teachcomputing.org/curriculum .

Term	Theme / Focus
Autumn Term 1A	Computing Systems & Networks
Autumn Term 1B	Creating Media – Unit A
Spring Term 2A	Programming – Unit A
Spring Term 2B	Data & Information
Summer Term 3A	Creating Media – Unit B
Summer Term 3B	Programming – Unit B

N.B. In Key Stage 1, Computing is taught on an alternating basis with Music. Computing will be taught, during the first half-term and Music taught during the second half-term.

Year 1 Main Computing Curriculum Coverage – Teach Computing

Term	Focus	Unit Overview	Lesson Focus
Autumn Term 1A	Computing Systems & Networks	Develop pupils' understanding of technology and how it can help them. They will become more familiar with the different components of a computer by developing their keyboard and mouse skills, and also start to consider how to use technology responsibly.	1. Lesson 1 – Technology in Our Classroom 2. Lesson 2 – Using Technology 3. Lesson 3 – Developing Mouse Skills 4. Lesson 4 – Using a Computer Keyboard 5. Lesson 5 – Developing Keyboard Skills 6. Lesson 6 – Using a Computer Responsibly
Autumn Term 1B	N/A		
Spring Term 2A	Programming – Unit A	This unit introduces learners to early programming concepts. Learners will explore using individual commands, both with other learners and as part of a computer program. They will identify what each floor robot command does and use that knowledge to start predicting the outcome of programs. The unit is paced to ensure time is spent on all aspects of programming and builds knowledge in a structured manner. Learners are also introduced to the early stages of program design through the introduction of algorithms.	1. Lesson 1 – Buttons 2. Lesson 2 – Directions 3. Lesson 3 – Forwards and Backwards 4. Lesson 4 – 4 Directions 5. Lesson 5 – Getting There 6. Lesson 6 – Routes
Spring Term 2B	N/A		
Summer Term 3A	Creating Media – Digital Writing	Promote pupils' understanding of the various aspects of using a computer to create and change text. Pupils will familiarise themselves with typing on a keyboard and begin using tools to change the look of their writing, and then they will consider the differences between using a computer and writing on paper to create text.	1. Lesson 1 – Exploring the Keyboard 2. Lesson 2 – Adding & Removing Text 3. Lesson 3 – Exploring the Toolbar 4. Lesson 4 – Making Changes to Texts 5. Lesson 5 – Explaining my Choices 6. Lesson 6 – Pencil or Keyboard
Summer Term 3B	N/A		1.

Year 2 Main Computing Curriculum Coverage – Teach Computing

Term	Focus	Unit Overview	Lesson Focus
Autumn Term 1A	Computing Systems & Networks	How is information technology (IT) being used for good in our lives? With an initial focus on IT in the home, pupils explore how IT benefits society in places such as shops, libraries, and hospitals. Whilst discussing the responsible use of technology, and how to make smart choices when using it.	1. Lesson 1 – What is I.T? 2. Lesson 2 – I.T in School 3. Lesson 3 – I.T in the World 4. Lesson 4 – The Benefits of I.T 5. Lesson 5 – Using I.T Safely 6. Lesson 6 – Using I.T in Different Ways
Autumn Term 1B	N/A		1.
Spring Term 2A	Programming – Unit A	This unit develops pupils' understanding of instructions in sequences and the use of logical reasoning to predict outcomes. Pupils will use given commands in different orders to investigate how the order affects the outcome. They will also learn about design in programming. They will develop artwork and test it for use in a program. They will design algorithms and then test those algorithms as programs and debug them.	1. Lesson 1 – Giving Instructions 2. Lesson 2 – Same but Different 3. Lesson 3 – Making Predictions 4. Lesson 4 – Mats & Routes 5. Lesson 5 – Algorithm Design 6. Lesson 6 - Debugging
Spring Term 2B	N/A		1.
Summer Term 3A	Creating Media – Digital Writing	Pupils will explore how music can make them think and feel. They will make patterns and use those patterns to make music with both percussion instruments and digital tools. They will also create different rhythms and tunes, using the movement of animals for inspiration. Finally, pupils will share their creations and compare creating music digitally and non-digitally.	1. Lesson 1 – How Music Makes Us Feel 2. Lesson 2 – Rhythms & Patterns 3. Lesson 3 – How Music can be Used 4. Lesson 4 – Notes & Tempo 5. Lesson 5 – Creating Digital Music 6. Lesson 6 – Reviewing & Editing Music
Summer Term 3B	N/A		1.

Year 3 Main Computing Curriculum Coverage – Teach Computing

Term	Focus	Unit Overview	Lesson Focus
Autumn Term 1A	Computing Systems & Networks	Challenge pupils to develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. Start by comparing digital and non-digital devices, before introducing them to computer networks that include network infrastructure devices like routers and switches.	1. Lesson 1 – How does a digital device work? 2. Lesson 2 – What parts make up a digital device? 3. Lesson 3 – How do digital devices help us? 4. Lesson 4 – How am I connected? 5. Lesson 5 – How are computers connected?
Autumn Term 1B	Creating Media – Digital Painting	Pupils will use a range of techniques to create a stop-frame animation using tablets. Next, they will apply those skills to create a story-based animation. This unit will conclude with learners adding other types of media to their animation, such as music and text.	1. Lesson 1 – Can a picture move? 2. Lesson 2 – Frame by Frame 3. Lesson 3 – What's the story? 4. Lesson 4 – Picture Perfect! 5. Lesson 5 – Evaluate & Make It Great 6. Lesson 6 – Lights, Camera, Action!
Spring Term 2A	Programming – Unit A	This unit explores the concept of sequencing in programming through Scratch. It begins with an introduction to the programming environment, which will be new to most pupils. They will be introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences. The final project is to make a representation of a piano. The unit is paced to focus on all aspects of sequences, and make sure that knowledge is built in a structured manner. Pupils also apply stages of program design through this unit.	1. Lesson 1 – Introduction to Scratch 2. Lesson 2 – Programming Sprites 3. Lesson 3 – Sequences 4. Lesson 4 – Ordering Commands 5. Lesson 5 – Looking Good 6. Lesson 6 – Making an Instrument
Spring Term 2B	Data & Information – Grouping Data	Pupils will develop their understanding of what a branching database is and how to create one. They will use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects. Pupils will create physical and on-screen branching databases. To conclude the unit, they will create an identification tool using a branching database, which they will test by using it. They will also consider real-world applications for branching databases.	1. Lesson 1 – Yes or No Questions 2. Lesson 2 – Making Groups 3. Lesson 3 – Creating a Branching Database 4. Lesson 4 – Structuring a Branching Database 5. Lesson 5 – Using a Branching Database 6. Lesson 6 – Two Ways of Presenting Information
Summer Term 3A	Creating Media – Digital Writing	During this unit, pupils will become familiar with the terms, 'text' and 'images' and understand that they can be used to communicate messages. They will use desktop publishing software and consider careful choices of font size, colour and type to edit and improve premade documents. Pupils will be introduced to the terms 'templates', 'orientation', and 'placeholders' and begin to understand how these can support them in making their own template for a magazine front cover. They will start to add text and images to create their own pieces of work using desktop publishing software. Pupils will look at a range of page layouts thinking carefully about the purpose of these and evaluate how and why desktop publishing is used in the real world.	1. Lesson 1 – Words & Pictures 2. Lesson 2 – Can you edit it? 3. Lesson 3 – Great Template! 4. Lesson 4 – Can you add content? 5. Lesson 5 – Lay It Out 6. Lesson 6 – Why desktop publishing?
Summer Term 3B	Programming – Unit B	This unit explores the links between events and actions, whilst consolidating prior learning relating to sequencing. Pupils will begin by moving a sprite in four directions (up, down, left and right). They will then explore movement within the context of a maze, using design to choose an appropriately sized sprite. This unit also introduces programming extensions, through the use of pen blocks. Pupils are given the opportunity to draw lines with sprites and change the size and colour of lines. The unit concludes with pupils designing and coding their own maze tracing program.	1. Lesson 1 – Moving a Sprite 2. Lesson 2 – Maze Movement 3. Lesson 3 – Drawing Lines 4. Lesson 4 – Adding Features 5. Lesson 5 – Debugging Movement 6. Lesson 6 – Making a Project

Year 4 Main Computing Curriculum Coverage – Teach Computing

Term	Focus	Unit Overview	Lesson Focus
Autumn Term 1A	Computing Systems & Networks	Pupils will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information. This unit requires devices with an internet connection. Chrome Music Lab is used in one lesson to demonstrate content which can be produced on the World Wide Web.	1. Lesson 1 – Connecting Networks 2. Lesson 2 – What is the internet made of? 3. Lesson 3 – Sharing Information 4. Lesson 4 – What is a website? 5. Lesson 5 – Who owns the web? 6. Lesson 6 – Can I believe what I read?
Autumn Term 1B	Creating Media – Digital Painting	Pupils will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Pupils will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, pupils will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, pupils will evaluate their work and give feedback to their peers.	1. Lesson 1 – Digital Recording 2. Lesson 2 – Recording Sounds 3. Lesson 3 – Creating a Podcast 4. Lesson 4 – Editing Digital Recordings 5. Lesson 5 – Combining Audio 6. Lesson 6 – Evaluating Podcasts
Spring Term 2A	Programming – Unit A	This unit is the first of the two programming units in Year 4, and looks at repetition and loops within programming. Pupils will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language.	1. Lesson 1 – Programming a Screen Turtle 2. Lesson 2 – Programming Letters 3. Lesson 3 – Patterns & Repeats 4. Lesson 4 – Using Loops to Create Shapes 5. Lesson 5 – Breaking Things Down 6. Lesson 6 – Creating a Program
Spring Term 2B	Data & Information – Grouping Data	In this unit, pupils will consider how and why data is collected over time. Pupils will consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment. Pupils will collect data as well as access data captured over long periods of time. They will look at data points, data sets, and logging intervals. Pupils will spend time using a computer to review and analyse data. Towards the end of the unit, pupils will pose questions and then use data loggers to automatically collect the data needed to answer those questions.	1. Lesson 1 – Answering Questions 2. Lesson 2 – Data Collection 3. Lesson 3 – Logging 4. Lesson 4 – Analysing Data 5. Lesson 5 – Data for Answers 6. Lesson 6 – Answering my Question
Summer Term 3A	Creating Media – Photo Editing	Pupils will develop their understanding of how digital images can be changed and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have, and evaluate the effectiveness of their choices.	1. Lesson 1 – Changing Digital Images 2. Lesson 2 – Changing the Composition of Images 3. Lesson 3 – Changing Images for Different Uses 4. Lesson 4 – Retouching Images 5. Lesson 5 – Fake Images 6. Lesson 6 – Making & Evaluating a Publication
Summer Term 3B	Programming – Unit B	This unit explores the concept of repetition in programming using the Scratch environment. It begins with a Scratch activity similar to that carried out in Logo in Programming unit A, where learners can discover similarities between two environments. Pupils look at the difference between count-controlled and infinite loops, and use their knowledge to modify existing animations and games using repetition. Their final project is to design and create a game which uses repetition, applying stages of programming design throughout.	1. Lesson 1 – Using Loops to Create Shapes 2. Lesson 2 – Different Loops 3. Lesson 3 – Animate Your Name 4. Lesson 4 – Modifying a Game 5. Lesson 5 – Designing a Game 6. Lesson 6 – Creating

Year 5 Main Computing Curriculum Coverage – Teach Computing

Term	Focus	Unit Overview	Lesson Focus
Autumn Term 1A	Computing Systems & Networks	In this unit, pupils will develop their understanding of computer systems and how information is transferred between systems and devices. Pupils will consider small-scale systems as well as large-scale systems. They will explain the input, output, and process aspects of a variety of different real-world systems. Pupils will also take part in a collaborative online project with other class members and develop their skills in working together online.	1. Lesson 1 – Systems 2. Lesson 2 – Computer Systems & Us 3. Lesson 3 – Searching the Web 4. Lesson 4 – Selecting Search Results 5. Lesson 5 – How Search Results are Ranked 6. Lesson 6 – How Searches are Influenced
Autumn Term 1B	Creating Media – Digital Painting	This unit gives pupils the opportunity to learn how to create short videos in groups. As they progress through this unit, they will be exposed to topic-based language and develop the skills of capturing, editing, and manipulating video. Active learning is encouraged through guided questions and by working in small groups to investigate the use of devices and software. Pupils are guided with step-by-step support to take their idea from conception to completion. At the teacher's discretion, the use of green screen can be incorporated into this unit. At the conclusion of the unit, pupils have the opportunity to reflect on and assess their progress in creating a video.	1. Lesson 1 – What is Video? 2. Lesson 2 – Filming Techniques 3. Lesson 3 – Using a Storyboard 4. Lesson 4 – Planning a Video 5. Lesson 5 – Importing & Editing Video 6. Lesson 6 – Video Evaluation
Spring Term 2A	Programming – Unit A	In this unit, pupils will use physical computing to explore the concept of selection in programming through the use of the Crumble programming environment. Pupils will be introduced to a microcontroller (Crumble controller) and learn how to connect and program components (including output devices- LEDs and motors) through the application of their existing programming knowledge. Pupils are introduced to conditions as a means of controlling the flow of actions and make use of their knowledge of repetition and conditions when introduced to the concept of selection (through the if, then structure).	1. Lesson 1 – Connecting Crumbles 2. Lesson 2 – Combining Output Components 3. Lesson 3 – Controlling with Conditions 4. Lesson 4 – Starting with Selection 5. Lesson 5 – Drawing Design 6. Lesson 6 – Writing & Testing Algorithms
Spring Term 2B	Data & Information – Grouping Data	This unit looks at how a flat-file database can be used to organise data in records. Pupils use tools within a database to order and answer questions about data. They create graphs and charts from their data to help solve problems. They use a real-life database to answer a question, and present their work to others.	1. Lesson 1 – Creating a Paper-based Database 2. Lesson 2 – Computer Databases 3. Lesson 3 – Using a Database 4. Lesson 4 – Using Search Tools 5. Lesson 5 – Comparing Data Visually 6. Lesson 6 – Databases in Real-life
Summer Term 3A	Creating Media – Digital Writing	In this unit, pupils start to create vector drawings. They learn how to use different drawing tools to help them create images. Pupils recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Pupils layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work. This unit is planned using the Google Drawings app, other alternative pieces of software are available.	1. Lesson 1 – The Drawing Tools 2. Lesson 2 – Creating Images 3. Lesson 3 – Making Effective Drawings 4. Lesson 4 – Layers & Objects 5. Lesson 5 – Manipulating Objects 6. Lesson 6 – Create a Vector Drawing
Summer Term 3B	Programming – Unit B	In this unit, pupils develop their knowledge of selection by revisiting how conditions can be used in programs and then learning how the If… Then… Else structure can be used to select different outcomes depending on whether a condition is true or false. They represent this understanding in algorithms and then by constructing programs using the Scratch programming environment. They use their knowledge of writing programs and using selection to control outcomes to design a quiz in response to a given task and implement it as a program.	1. Lesson 1 – Exploring Conditions 2. Lesson 2 – Selecting Outcomes 3. Lesson 3 – Asking Questions 4. Lesson 4 – Planning a Quiz 5. Lesson 5 – Evaluating a Quiz

Year 6 Main Computing Curriculum Coverage – Teach Computing

Term	Focus	Unit Overview	Lesson Focus
Autumn Term 1A	Computing Systems & Networks	In this unit, pupils explore how data is transferred over the internet. Pupils initially focus on addressing, before they move on to the makeup and structure of data packets. Pupils then look at how the internet facilitates online communication and collaboration; they complete shared projects online and evaluate different methods of communication. Finally, they learn how to communicate responsibly by considering what should and should not be shared on the internet. Note: Some of the content in this unit was previously included in the Year 5 – 'Computer systems and networks' unit, so some pupils may have already completed similar activities. Where this is the case, the context for the activity has been changed.	1. Lesson 1 – Internet Addresses 2. Lesson 2 – Data Packets 3. Lesson 3 – Working Together 4. Lesson 4 – Shared Working 5. Lesson 5 – How We Communicate 6. Lesson 6 – Communicating Responsibly
Autumn Term 1B	Creating Media – Digital Painting	This unit introduces pupils to the creation of websites for a chosen purpose. Pupils identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process pupils pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths.	1. Lesson 1 – What makes a good website? 2. Lesson 2 – How would you layout a webpage? 3. Lesson 3 – Copyright or CopyWRONG? 4. Lesson 4 – How does it look? 5. Lesson 5 – Follow the Breadcrumbs 6. Lesson 6 – Think Before You Link!
Spring Term 2A	Programming – Unit A	This unit explores the concept of variables in programming through games in Scratch. First, learners find out what variables are and relate them to real-world examples of values that can be set and changed. Then they use variables to create a simulation of a scoreboard. In Lessons 2, 3, and 5, which follow the Use-Modify-Create model, pupils experiment with variables in an existing project, then modify them, before they create their own project. In Lesson 4, pupils focus on design. Finally, in Lesson 6, pupils apply their knowledge of variables and design to improve their games in Scratch.	1. Lesson 1 – Introducing Variables 2. Lesson 2 – Variables in Programming 3. Lesson 3 – Improving a Game 4. Lesson 4 – Designing a Game 5. Lesson 5 – Design to Code 6. Lesson 6 – Improving & Sharing
Spring Term 2B	Data & Information – Grouping Data	This unit introduces pupils to spreadsheets. They will be supported in organising data into columns and rows to create their own data set. Pupils will be taught the importance of formatting data to support calculations, while also being introduced to formulas and will begin to understand how they can be used to produce calculated data. Pupils will be taught how to apply formulas that include a range of cells, and apply formulas to multiple cells by duplicating them. Pupils will use spreadsheets to plan an event and answer questions. Finally, pupils will create charts, and evaluate their results in comparison to questions asked.	1. Lesson 1 – What is a spreadsheet? 2. Lesson 2 – Modifying Spreadsheets 3. Lesson 3 – What's the Formula? 4. Lesson 4 – Calculate & Duplicate 5. Lesson 5 – Event Planning 6. Lesson 6 – Presenting Data
Summer Term 3A	Creating Media – Digital Writing	Pupils will develop their knowledge and understanding of using a computer to produce 3D models. Pupils will initially familiarise themselves with working in a 3D space, moving, resizing, and duplicating objects. They will then create hollow objects using placeholders and combine multiple objects to create a model of a desk tidy. Finally, pupils will examine the benefits of grouping and ungrouping 3D objects, then go on to plan, develop, and evaluate their own 3D model of a building.	1. Lesson 1 – Introduction to 3D Modelling 2. Lesson 2 – Modifying 3D Objects 3. Lesson 3 – Make Your Own 3D Badge 4. Lesson 4 – Making a Desk Tidy 5. Lesson 5 – Planning a 3D Model 6. Lesson 6 – Make Your Own 3D Model
Summer Term 3B	Programming – Unit B	This unit offers pupils the opportunity to use all of these constructs in a different, but still familiar environment, while also utilising a physical device — the micro:bit. The unit begins with a simple program for pupils to build in and test within the new programming environment, before transferring it to their micro:bit. Pupils then take on three new projects in Lessons 2, 3, and 4, with each lesson adding more depth.	1. Lesson 1 – The Micro:bit 2. Lesson 2 – Go with the Flow 3. Lesson 3 – Sensing Inputs 4. Lesson 4 – Finding Your Way 5. Lesson 5 – Designing a Step Counter 6. Lesson 6 – Making a Step Counter