Yorke Mead Primary School
COMPUTING CURRICULUM

Overview

At Yorke Mead we have made a decision to adopt The Purple Mash computing scheme as the basis of our curriculum. However, we recognise that this scheme predominately uses its own software that is not freely available in the 'real' world. The software enables pupils to develop the knowledge, skills and understanding required to be able to use software such as Microsoft Word, Excel etc. that are in more general use and therefore we value this. However, to ensure pupils are appropriately prepared for the nest stage of their computing learning we combine the Purple Mash scheme with units from the Hertfordshire Computing Scheme and other identified programmes.

Within our scheme units cover the three core elements of:
- Computer Science –
- Information Technology
- Digital Literacy

Together these strands come together to teach children how computers and computer systems work, how to design, build and analyse programs, and how to find and manage digital information securely.

Most units will contain all three strands, but there will be a predominant strand and these are identified through the scheme using the appropriate colour key.

Predominant Area of Computing		
Computer Science	**Information Technology**	**Digital Literacy**
The core of computing is computer science. Pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.	Building om their computer science knowledge pupils are equipped to use information technology to create programs, systems and a range of content	Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Year R: Throughout the Year

At Yorke Mead we make a conscious effort to not discretely 'teach' computing weekly in Early Years. That does not mean we do not teach computing. The children will access technological devices and activities as part of their wider learning. Computing in Early Years includes:

- *taking a photograph with a camera or tablet*
- *searching for information on the internet*
- *playing games on the interactive whiteboard*
- *exploring an old typewriter or other mechanical toys*
- *use of IT in role play areas*
- *watching a video clip*
- *listening to music*
- *early coding develops as the children explore both the 'Coding Caterpillars' and the 'Beetbots' to understand the early stages of programming.*

Early Computing Skills

As part of the children's knowledge and understanding of the world (KUW) learning the children will learn different parts/types of computing equipment and how to use devices safely.

Key vocabulary to be developed: **desktop, laptop, computer case, tablet, mobile, monitor, keyboard, touchpad, trackpad, microphone, headphone, mouse, printer.**

Developing an understanding of safe and healthy use of IT

Through the work in PSHE the pupils will be helped to understand the following key messages:

- That some content online is not meant for children and if they see anything that upsets them to tell a trusted adult.
- That there are special search engine sites for children, and they should not use search generally – they must use the site adults have placed them on.
- That too much screen time is bad for our wellbeing.
- That computers and IT based resources, like all resources, need to be shared and children need to take turns.
- That using computers in some places can be dangerous.

In teaching the children about this teachers will use a range of resources including the Purple Mash Reception programmes of learning and other reputable sites including Internet matters.org and CEOP Think You Know.

Yorke Mead Primary School
COMPUTING CURRICULUM

Autumn Term: 13 weeks	Spring Term: 11 weeks	Summer Term: 14 weeks											38 weeks blocked
Online Safety	Tech outside c'room	Let's Create	Pictograms	WP		Group & Sorting	Lego Building	WP	Animated Storybooks		Maze Explorers	Spreadsheets	WP	Coding

---

Year 1 AUTUMN
Key Themes :
Unit 1.1 Online safety (Purple Mash)
Unit 1.9 Technology outside school (Purple Mash)
Lets create Understanding digital texts/difference between hardware and software (Herts Computing Scheme)
Unit 1.3 Pictograms (Purple Mash)

National Curriculum:
Unit 1.1 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.
Unit 1.9 Recognise common uses of information technology beyond school
Unit 1.3 Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Learning Theme:
The theme of these units to ensure that children are able to work on a computer safely and securely. They learn to login and take ownership of their own learning area. Children begin to become familiar with Purple Mash and how to navigate around the system. Children begin to explore digital texts, using varied devices and software to create digital content. They investigate differences between input and output and hardware and software. They explore the idea of a network related to computers at home and school, logging on to their area with support. They use unplugged computing approaches to explore the devices they use. They consider eSafe practice.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 1.1 Online safety		

Revisit computer keyboards and the simple functions of the different parts of a computer.	**Unit 1.1 Online Safety** - 4 Lessons (Purple Mash) • To log in safely. • To learn how to find saved work in the Online Work area and find teacher comments. • To learn how to search Purple Mash to find resources. • To become familiar with the icons and types of resources available in the Topics section. • To start to add pictures and text to work. • To explore the Tools and Games section of Purple Mash. • To learn how to open, save and print. • To understand the importance of logging out.	Explain to and support peers in the process. Retrieve previously saved work.	Alert Button Device File Name Icon Avatar Log in Log out Notification My Work Area Private
	Unit 1.9 Technology outside school		
Know how technology is used in their homes, in the community and in their classrooms.	**Unit 1.9 Technology outside of school** – 2 Lessons (Purple Mash) • To walk around the local community and find examples of where technology is used. • To record examples of technology outside school.	May be able to speak with greater confidence about technology in the broader community recognising the challenges when the internet stops working.	Computer Technology
	Let's create lessons 1-3 Understanding digital texts and the difference between hardware and software		
Identify the devices used to listen to music, watch videos, take photo and play games.	**Let's Create** - 3 Lessons (HERTS) • Begin to explore digital texts, using varied devices and software to create digital content. • To investigate differences between input and output and hardware and software. • Explore the idea of a network related to computers at home and school, logging on to their area with support. • Use unplugged computing approaches to explore the devices they use. • Consider eSafe practice.	Know how to log into programmes from both home and school. They are beginning to confidently draw and type text on the computer.	Names of hardware, e.g. computer, visualiser, webcam, microphone, microscope, smartphone etc
	Unit 1.3 Pictograms		

| Recognise and understand a pictogram and tally chart created on paper or physically using objects. | **Unit 1.3** Pictograms – 3 lessons (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. | Collate and organise class data into a physical pictogram and a virtual pictogram
 Interrogate this data to present statements about the data e.g. 'The second most popular form of transport was…'.
 Independently, children can create, store, retrieve and share their own pictograms. | Collect Data
 Compare
 Data
 Pictogram
 Record Results
 Title |

Year 1   SPRING
Key Theme:
Unit 1.2 Grouping and sorting (Purple Mash)
Unit 1.4 Lego building (Purple Mash)
Unit 1.6 Animated story books (Purple Mash)

National Curriculum:
Units 1.2 and 1.4 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
Units 1.6 Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Learning Theme: Children learn to animate on screen and to create their own e-books. Instructions are taught through Lego building and the children are made aware of the importance of following instructions.

Previous Learning To be reinforced	**Core Learning Intentions** Age Related	**Extension Opportunities**	**Key Vocabulary**
	Unit 1.2 Grouping and Sorting		

Yorke Mead Primary School
COMPUTING CURRICULUM

With support, children can physically sort items using a limited number of given criteria.	**Unit 1.2 Grouping and sorting – 2 lessons (Purple Mash)** • To begin to think logically about the steps of a process. • To sort items using a range of criteria. • To sort items on the computer using the 'Grouping' activities in Purple Mash. • To bring together logical thinking and the use of technology. • To introduce the term 'algorithm' to describe logically following a process.	Children demonstrate their depth of understanding by creating their own criteria for items against which they can physically sort, collate, edit, present, search through, re-order and re-structure and explain their reasoning. Using Purple Mash, children can also sort items into Venn diagrams using given criteria	Criteria Groups Sort Algorithm
	Unit 1.4 Lego Building		
Importance of following instructions Giving instructions Know computers need instructions	**Unit 1.4 Lego building – 3 lessons (Purple Mash)** • To compare the effects of adhering strictly to instructions to completing tasks without complete instructions. • To follow and create simple instructions on the computer. • To consider how the order of instructions affects the result	Precision of instructions refined Give instructions that demonstrate they are anticipating the outcome. Know that an algorithm is a set of instructions used to solve a problem or achieve an objective. Know that an algorithm written for a computer to follow is called a program. Work out what is wrong in an algorithm when the steps are out of order and can debug the algorithm.	Algorithm Code Computer Debugging Instructions Programme
	Unit 1.6 Animated Story Book		
Use of paint – paint tools	**Unit 1.6 Animated story books - 5 Lessons (Purple Mash)** 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.	Pupils know how to change the font, the sounds, the images in their e-book, and can do this independently.	Animation Clip-art Gallery Background E-book Edit Font Sounds Sound Effect Text

Year 1 SUMMER

Key Theme:

Unit 1.5 Maze Explorers

Unit 1.8 Spread sheets

Unit 1.7 Coding

National Curriculum:

Unit 1.5 maze explorers- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

Unit 1.8 spread sheets- Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Unit 1.7 coding - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. 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.

Learning Theme:

Children will continue to identify algorithms and how they are used in computing. They will be introduced to coding and the different skills that are required in this unit. This will lead to them constructing their own computer program.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 1.5 Maze Explorers		
Lego Builders Logical decision making Sequencing instructions Following instructions	**Unit 1.5 Maze Explorers – 4 lessons (Purple Mash)** • To understand the functionality of the direction keys. • To understand how to create and debug a set of instructions (algorithm). • To use the additional direction keys as part of an algorithm. • To understand how to change and extend the algorithm list. • To create a longer algorithm for an activity. • To set challenges for peers. • To access peer challenges set by the teacher as 2Dos.	Begin to identify errors in computing algorithms and know that we call this debugging. Able to explain the impact of changing the algorithm.	Algorithm Challenge. Direction Instruction Left and Right Route. Undo
	Unit 1.8 Spread sheets		

Pictograms	Unit 1.8 Spread sheets- 3 lessons (Purple Mash)	Be confident using the programme and able to interpret the data – asking and answering questions. Identify errors in the programmes.	Lock cell Speak tool Calculations. Column Move cell Spreadsheet Cell Count tool
Know what data is and how data is represented	• To know what a spreadsheet program looks like. • To locate 2Calculate in Purple Mash. • 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.		

Unit 1.7 Coding

Lego Builders	Unit 1.7 Coding – 6 lessons (Purple Mash)	Be able to create a program using sequencing and repeat. Begin to visualise outcomes and plan a program to match a given regular shape.	Action Algorithm Background Code Command Debug/Debugging. Event Execute
Know what an algorithm is Sequencing instructions Making logical decisions Following instructions	• To understand what instructions are and predict what might happen when they are followed. • To use code to make a computer program. • To understand what object and actions are. • To understand what an event is. • To use an event to control an object. • To begin to understand how code executes when a program is run. • To understand what backgrounds and objects are. • To plan and make a computer program.		

Yorke Mead Primary School
COMPUTING CURRICULUM

Autumn Term: 13 weeks	Spring Term: 11 weeks	Summer Term: 14 weeks						38 weeks blocked	
Questioning	Getting Creative				Effective Searching	MindMaps	Spreadsheets		Online Safety	Messages & Virtual Worlds	Coding

Year 2   AUTUMN

Key Theme:

Unit 2.4 Questioning, Investigating which software support writing (Purple Mash)

Unit 2.6 Creating pictures/ comparing digital and non-digital images (Purple Mash) or **Getting Creative** (Herts)

Unit 2.7 Making music (Purple Mash)

National Curriculum

Units 2.4, 2.6, 2.7   Comparing digital and non-digital images.

Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Learning Theme:

Children build understanding of digital texts. They use varied devices and software with increased precision to create digital content. They revisit differences between input and output and hardware and software. They develop understanding of networks related to computers at home and school, logging on to their areas. They build understanding of algorithms using unplugged approaches. They develop eSafe practice.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 2.4 Questioning, Investigating which software support writing (Herts)		
Sorting data according to criteria Collecting and presenting data in pictorial form	Unit 2.4 Questioning, Investigating which software support writing – 5 lessons (Purple Mash) • 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.	Sort and interrogate data Construct questions for others to answer using their data base.	Binary tree Data Database Field Pictogram Question Record Search Sort

Yorke Mead Primary School
COMPUTING CURRICULUM

Unit 2.6 Creating pictures/ comparing digital and non-digital images (Herts)			
Animated Story Books Focus on paint tools Animated images Revisit concept of background and foreground	Unit 2.6 Creating pictures/ comparing digital and non-digital images- 5 lessons (Herts) • To learn the functions of the 2Paint a Picture tool. • To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir). • To recreate Pointillist art and look at the work of pointillist artists such as Seurat. • To learn about the work of Piet Mondrian and recreate the style using the lines template. • To learn about the work of William Morris and recreate the style using the patterns template. • To explore surrealism and eCollage.	Use a wider range of functions including copy and paste, stamps. Be able to open previous work, edit and save Be able to compare the styles of art and select appropriate tool for a given piece of work.	Art Palette Style Fill Pointillism Impressionism Surrealism
Unit 2.7 Making music			
Animated Story Books Revisit adding sound effects to stories in 2 Create a story.	Unit 2.7 Making music – 3 lessons (Purple Mash) • 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.	Sequence sounds and programs to create patterns in music.	Beat Tune Speed Compose Tempo Sound Effect Note Soundtrack Volume

Year 2 SPRING

Key Theme:

Unit 2.5 Effective searching (Purple Mash)

Unit 2.8 Presenting ideas Mind Maps   (Purple Mash or Herts)

Unit 2.3 Spreadsheets (Purple Mash)

National Curriculum:

Recognise common uses of information technology beyond school.

Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Learning Theme:

Children develop understanding of researching using non-digital and digital sources, including the World Wide Web. They understand the need to check their research results. They present their research. They use charts, graphs and mind maps. They begin to respect copyright and ownership and know who to talk to if they are worried.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 2.5 Effective searching		
Online Safety and Technology Outside School Technology outside school Safe logins, using search functions Consider the concept of technology in the world around us.	Unit 2.5 Effective searching – 3 lessons (Purple Mash) • 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.	Know what to do if something pops up that is not appropriate. Be able to think about how to refine a search to find more specific details.	Digital footprint Domain Internet Network Search Engine Web Address Web Site Webpage World Wide Web
	Unit 2.8 Presenting ideas Mind Maps (Herts)		
Animated story books How to create text How to create/use illustrations Recap using 2Paint program	Unit 2.8 Presenting ideas Mind Maps – 4 lessons (Purple Mash) • To explore how a story can be presented in different ways • To make a quiz about a story or class topic. • To make a fact file on a non-fiction topic. • To make a presentation to the class.	Develop font style, colour size etc for maximum effect	E-book Fact file Fiction Mind map Node Non Fiction

Yorke Mead Primary School
COMPUTING CURRICULUM

	This unit links closely with the Herts Mind Maps unit and can be replaced with this if this links better with other curriculum units **Mind Maps (Herts) key learning** They present their research. They use charts, graphs and mind maps. They begin to respect copyright and ownership and know who to talk to if they are worried.		Presentation Quiz

Unit 2.3 Spreadsheets

Spreadsheets 2 Calculate and spreadsheet navigation. Key vocabulary – cell, column, row	Unit 2.3 Spreadsheets – 4 lessons (Purple Mash) • 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.	Develop questioning and interrogation of data. Compose questions for others' to answer	Block graph Cell Column Copy Count Tool Data Drag Equals Equals Tool Label Row Speak Tool Table Total

---

Year 2 SUMMER

Key Theme :

Unit 2.2   Online Safety (Purple Mash)

Messages and Virtual Words : Investigate Ways in which software supports writing (Herts)

Unit 2.1 Coding (Purple Mash)

National Curriculum:
Unit 2.2 Online Safety

Yorke Mead Primary School
COMPUTING CURRICULUM

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.

Unit 2.1 Coding

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs.   Use logical reasoning to predict the behaviour of simple programs.

Investigate ways in which software supports writing

Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Learning Theme:

The online safety units within the Computing Scheme of Work provide in-depth coverage of computing related online safety aspects.

Children will be learning how to use the Search tool to find resources on Purple Mash. They will be sharing work to a Display Board. They will be using 2Respond (2Email) to start to communicate by email on Purple Mash. They will be learning about what a digital footprint is and how to think about the information that they leave online.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 2.2 Online Safety		
Online Safety and Technology Outside School Safe logins Concept of privacy Concept of ownership Need to logout	**Unit 2.2 Online Safety – 3 lessons (Purple Mash)** • To know how to refine searches using the Search tool. • To use digital technology to share work on Purple Mash to communicate and connect with others locally. • To have some knowledge and understanding about sharing more globally on the Internet. • To introduce Email as a communication tool using 2Respond simulations. • 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.	Understand the reliability of information Know how to report problems Understand concept of spoof websites	Attachment Digital footprint Email Filter Internet Personal Information Private Information Search Secure Sharing
	Investigating ways in which software supports writing. (Herts)		

Understand basic word processing	Messages & Virtual Words: Investigating ways in which software supports writing.	Be able to effectively select functions so that elements of text stand out.	Digital texts
Recognise key skills on keyboard including space bar, return key, shift key, caps lock and arrow keys	• Purposefully use digital tools for their work, including simple word processing packages • Discuss how they use technology for text and still image in and beyond school • Develop understanding of the core functions of word processing and how to import an image into a body of text. • Share their work with others, beginning to use feedback and self-review to improve their work	Save and retrieve their own work Edit their own work Add images to text with confidence.	Non-digital Word processing terms: Bold Font Highlight Italic Style
	Unit 2.1 Coding		
Coding, Lego Buiders and Maze Explorers	Unit 2.1 Coding - 6 lessons (Purple Mash)	Begin to apply the code, test and debug process	Action
Sequencing and following Instructions Creating programmes – knowing what a programme is Coding	• 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	Recognise how flowcharts support the process	Algorithn Background Bug Button Click events Collision detection Command Debug/debugging Event Execute

Yorke Mead Primary School
COMPUTING CURRICULUM

Autumn Term: 13 weeks	Spring Term: 11 weeks	Summer Term: 14 weeks			38 weeks blocked
Online Safety	Spreadsheets	Stop Motion Animation	Databases	Email	Coding	Presenting (Powerpoint)

Year 3 AUTUMN

Key Theme:

Unit 3.2 Online Safety (Purple Mash)

Unit 3.3 Spreadsheets (Purple Mash)

Stop Motion Animation (Ipad software)

National Curriculum:

Unit 3.2 Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Init 3.3 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.

Learning Theme: The online safety units within the Computing Scheme of Work deepen the understanding of computing related online safety aspects.

Children will be learning how the process of stop motion animation works using resources on Purple Mash and software available on IPads. They will be learning the process before applying their knowledge in their own stop, motion animation

Yorke Mead Primary School
COMPUTING CURRICULUM

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
with Unit header	**Unit 3.2 Online Safety**		

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
Online Safety and Effective Searching Digital footprint Share to a display board Emotional impact of communications Privacy Search engine Sharing online	Unit 3.2 Online Safety – 3 lessons Purple Mash • 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.	Understanding attachments Knowing not to open attachments from someone not know Knowing not to meet people met on line Evaluating appropriateness of communications	Appropriate Blog Inappropriate Internet Password Permission Personal Information Reliable source Reputable source Spoof Verify Vlog Website

Unit 3.3 Spreadsheets

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
Spreadsheets and Questioning Copy and paste Totalling tools Addition Table layout Block graph Representing data Pictograms Binary trees Databases	Unit 3.3 Spreadsheets – 3 lessons Purple Mash • To use the symbols more than, less than and equal to compare values. • To use 2Calculte to collect data and produce a variety of graphs • To use the advance mode of 2Calculate to learn about cell references.	Be able to use tools with confidence and teach others how to do so. Begin to use cell formatting	Advance mode Bargraph Cell Address Columns Data Equals Less than More than More than,less than & equals tool Pie chart Quiz tool Rows Spin tool Spreadsheet Table

Yorke Mead Primary School
COMPUTING CURRICULUM

Stop Motion Animation (IPad programme)			
Basic animation and what this means Understanding the process of animation	**Creating a simple stop motion animation** – 7 lessons IPad • To identify features of stop motion • To understand the stages of creating a stop motion animation • To create story board • To create models to use in stop motion work • To use the skills learnt to create an engaging stop motion animation	Work with creativity Work with greater independence Show an eye and attention for detail Use flexibility to switch between projects	Capture Design Evaluate. Freeze iMotion Map Move Plan Props Stop motion Animation Storyboard

Year 3 SPRING

Key Theme :

Unit 3.6 Branching Database (Purple Mash)

Unit 3.5 Email (including email safety) (Purple Mash)

National Curriculum:

Unit 3.6 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

Unit 3.1 Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Unit 3.1 Use sequence, selection and repetition in programs; work with variables and various forms of input and output.

Unit 3.1 Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Learning Theme:

Children learn to use software to use and create their own databases. They will understand how to use databases in a variety of contexts and the reasons for their use.
Email allows the children to understand how we can communicate with each other through computing in a safe and secure manner. E-safety will play a significant part in this unit, making the children aware of the dangers associated with emailing and how to prevent them.

Yorke Mead Primary School
COMPUTING CURRICULUM

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 3.6 Branching Database		
Spreadsheets and Questioning Key features of 2Calculate Use questioning to separate and group data Logical thinking and debugging	**Unit 3.6 Branching Database** – 4 lessons (Purple Mash) • 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.	Be able to interrogate data in graph form Inputting and examining data	Binary tree Branching database Data Database Debugging
	Unit 3.5 Email (including email safety)		
Online Safety and Effective Searching Email simulations Exploration of what the internet is Searching and sharing Accessing the World Wide Web Good passwords and privacy Cyberbullying and reporting	**Unit 3.5 Email (including email safety)**- 6 lessons (Purple Mash) • To think about different methods of communication. • To open and respond to an email using an address book. • To learn how to use email safely. • To add an attachment to an email. • To explore a simulated email scenario.	Understand what a phishing email is Recognise reliable and unreliable sources Develop communication methods	Address book Attachment BCC CC Communication Compose Email Inbox Password Personal Information Save to draft Trusted contact

Year 3 SUMMER
Key Theme:
Unit 3.1 Coding (Purple Mash)
Unit 3.9 Presenting (Purple Mash)

National Curriculum:
Unit 3.1 Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
Unit 3.1 Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
Unit 3.1 Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Unit 3.9 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.
Unit 3.9 Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Learning Theme:
Children learn to create their own PowerPoint presentation including a range of features such as pictures, animation, sounds and video. They will also learn to use the skills learnt in previous weeks to design and present an effective presentation. Children will use their coding knowledge to create a range of programs with different coding features such as run, test and debug.

Yorke Mead Primary School
COMPUTING CURRICULUM

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 3.1 Coding		
Coding, Questioning, Branching Databases Algorithms Timers Buttons Debugging Collision detection Logical decision processing	**Unit 3.1 Coding-** 6 lessons (Purple Mash) • 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.	Begin to understand IF functions Apply the code, test and debug processes	Action Alert Algorithm Background Bug Button Click evet Code Collision Detection Event Command Debug/Debugging
	Unit 3.9 Presenting (PowerPoint)		
Presenting Ideas Creating work for a variety of genres Keyboard skills Inserting images and text boxes	**Unit 3.9 Presenting with Microsoft PowerPoint** – 6 lessons Purple Mash* • To understand the uses of PowerPoint • To create a page in a presentations • To add media to a presentation • To ad animations to a presntation • To add timings to a presentation • To use the skills learnt to design and create an engaging presentation.	Think about different audiences Understand importance of text formatting	Animation Border properties Font formatting Layer Media Presentation Slide Slideshow Text box Transition WordArt

Yorke Mead Primary School
COMPUTING CURRICULUM

Autumn Term: 13 weeks	Spring Term: 11 weeks	Summer Term: 14 weeks											38 weeks blocked			

Online Safety			Writing for audiences				Spreadsheets			Effective Searching				Using Logo			Coding

Year 4 AUTUMN

Key Theme:

Unit 4.2 Online safety – (Purple Mash)

Unit 4.4 Writing for audiences – (Purple Mash)

National Curriculum:

Unit 4.2 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.

Unit 4.2 Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Unit 4.4 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.

Learning Theme:

Children will learn the importance of being safe online. Be made aware of the importance of keep personal information safe and how to behave appropriately online. In unit 4.4 Writing for audiences, children learn that technology can be used to organise, reorganise, develop, and explore ideas, and that working with information in this way can aid understanding. It also gives children opportunities to discuss their experiences of using ICT and how it is used in the wider world.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 4.2 Online safety		

Online Safety and Emails	Unit 4.2 Online safety – 4 lessons (Purple Mash)	Understanding image manipulation	AdFly
Good passwords	• To understand how children can protect themselves from online identity theft.	Being confident identifying when a source may not be reliable	Attachment
Reliable sites	• To understand that information put online leaves a digital footprint or trail and that this can aid identity theft.	Appreciating ownership of content	Citation
Reporting problems	• To identify the risks and benefits of installing software including apps.	Learning how to cite sources	Collate
Cyberbullying	• To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.		Cookies
Spoof websites	• To identify appropriate behaviour when participating or contributing to collaborative online projects for learning.		Copyright
Sharing images	• To identify the positive and negative influences of technology on health and the environment.		Digital footprint
Attachments	• To understand the importance of balancing game and screen time with other parts of their lives.		Malware
			Phishing
			Plagiarism
			Ransonware
			SMART rules
			Spam
			Virus
			Watermark

Unit 4.4 Writing for audiences

Presenting, Emails	Unit 4.4 Writing for audiences – 5 lessons (Purple Mash)	Formatting text to match the content and purpose	Campaign
Communication style	• To explore how font size and style can affect the impact of a text.		Format
Presentation skills	• To use a simulated scenario to produce a news report.		Font
Reflecting on content for purpose	• To use a simulated scenario to write for a community campaign.		Genre
			Opinion
			Reporter
			Viewpoint

Year 4 SPRING
Key Theme:
Spreadsheets - (Herts computing scheme)
Unit 4.7 Effective Searching– (Purple Mash)

Yorke Mead Primary School
COMPUTING CURRICULUM

National Curriculum:

Spreadsheets and unit 4.7 - 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Learning Theme:

Children the use of the excel computer program to show and manipulate a range of data. They allow the children to collect data and present it in an organized way and to manage it to provide further information. For example, they can be used to sort information, share it with other users, and create graphs, such as bar graphs and pie charts. In unit 4.7, children develop their understanding of search engines and how to serac effectively by refining their search and identifying reliable sources of information.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Spreadsheets (Herts)		
Comparison tools <=> Cell references Types of chart – pie charts/bar charts Be able to investigate data	**Spreadsheets - (Herts computing scheme supported by Purple Mash)** • To introduce Excel • To format cells as currency, percentage, decimal to different decimal places or fraction. • 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.	Understand formulae Begin to understand variables in formulae Apply use in real life situation.	Average Budget Chart Column Formula Spreadsheet
	Unit 4.7 Effective Searching		

Online Safety and Effective Searching (2.5)	Unit 4.7 Effective Searching – 3 lessons (Purple Mash)		
Reliability of information	• To locate information on the search results page	Be able to understand SMART rules	Balanced view
Appropriate ratings	• To use search effectively to find out information	Recognise that images can be manipulated and information may not be realiable	Easter eggs
What is the internet?	• To assess whether an information source is true and reliable		Internet
The WWW			Keywords
Digital footprint		Begin to understand citing sources and plagiarism	Reliability
Searching and sharing			Results page
			Search engine

Year 4 SUMMER

Key Theme:

Unit 4.5 Using Logo – (Purple Mash)

Unit 4.1 Coding – (Purple Mash)

National Curriculum:

Unit 4.5 and Unit 4.1

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

Unit 4.1 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.

Learning Theme:

Children will build on prior coding knowledge Children will often be able to solve their own problems when they get stuck, either by reading through their code again or by asking their peers; this models the way that coding work is really done.

In Logo the children will learn common commands and constructs of the Logo programming language. Develop their ability to compose algorithms for drawing mathematical structures and turn these into Logo code.

Previous Learning	Core Learning Intentions	Extension Opportunities	Key Vocabulary

Yorke Mead Primary School
COMPUTING CURRICULUM

To be reinforced			
Unit 4.5 Using Logo			
Coding and Branching Databases Familiarity with code environment Logical planning of sequences Debugging skills	**Unit 4.5 Using Logo** – 4 lessons (Purple Mash) • To learn the structure of the coding language of 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.	Applying skills in situations such as art work or a game	Debugging Grid LOGO LOGO Commands Multi line mode Pen Down Pen Up Prediction Procedure
Unit 4.1 Coding			
Logo, Coding and Branching Databases Flowcharts Binary models Repeat Timers Understanding coding structures	**Unit 4.1 Coding** – 5 lessons (Purple Mash) • 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.	Applying sequences of coding in logical steps	Action Alert Algorithm Background Button Code blocks Command Debug/debugging Design Execute

Yorke Mead Primary School
COMPUTING CURRICULUM

Autumn Term: 13 weeks	Spring Term: 11 weeks	Summer Term: 14 weeks			38 weeks blocked

Online Safety			Coding & Scratch		Databases			Game Creator		3D Modelling		Word Processing MS Word

Year 5 AUTUMN
Key Theme :
5.2 Online Safety (Purple Mash)
Coding and Scratch (Herts Scheme)

National Curriculum:

Unit 5.2   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.

Unit 5.2   Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

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

Herts Coding   Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
Herts Coding   Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
Herts Coding   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.

Learning Theme: Children investigate automated systems in the wider world and the use of sensors within them. They create, test, debug and refine algorithms, pseudocode and the related programs using sequence, selection, repetition ad variables. They program physical devices, controlling inputs and outputs, relating to their study of automated systems. In the Unit of Online safety children critically about the information that they share online both about themself and others. • Children know who to tell if they are upset by something that happens online. • Children can use the SMART rules as a source of guidance when online.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	5.2 Online Safety		
Online Safety and Effective Searching Phishing Malware and viruses Plagiarism Screen time	**5.2 Online Safety – 4 lessons (Purple Mash)** • 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.	Understanding citing sources Recognising inappropriate behaviour and being a bystander Understanding how to minimise risk to self	Citation Collaborate Communication Copyright Creative Commons Licence Encrypt Identity theft Malware Ownership Password PEGI rating Personal information Phishing Reliable source SMART rules Spoof Validity
	Coding and Scratch (Herts Scheme)		
Coding Understand terms code, test, debug Apply process of code, test, debug IF statements Repeat Until and IF/ELSE stetements	**Coding and Scratch (Herts Scheme and Microbit) – 7 lessons (Can be supported by Unit 5.1** • Understand the micro:bit is a tiny computer which needs instructions in code to make it work. • Understand that sets of instructions for computers in a sequence are also called algorithms or programs. • Use the MakeCode editor to create instructions in code that the micro:bit can understand and then transfer them to the micro:bit. • Know the micro:bit has an LED display output which it can use to show words (as well as numbers and pictures). • Know automated systems respond to inputs from sensors	Apply programming confidently to programme an external device using inputs and outputs	Abstraction Algorithm Backdrop Blocks Cloning Coding Coordinates Drawing Costumes Debugging

	• Build and program a device with at least one input and one output • Design, debug and refine algorithms to solve problems, review effectiveness • Use logical reasoning to predict outcomes in programs and detect errors • Identify the objects in a Scratch project (sprites, backdrops) • Explain that objects in Scratch have attributes (linked to) • Recognise that commands in Scratch are represented as blocks	Decomposition Hardware Input device Logical reasoning Output device Projects Stage Repeat Repetition Scratch Scripts happens on the stage. Sequencing Software Sprite

Year 5 SPRING

Key Theme :

Unit 5.4 Databases – (Purple Mash)

Unit 5.5 Game Creator (Purple Mash

National Curriculum:

Unit 5.4 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.

Unit 5.5   Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Learning Theme:

Children will be using the database program 2Investigate to learn about the functions of databases. Children understand the different ways to search a database, learning to successfully input data into a database.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 5.4 Databases		
Spreadsheets Presenting data through line graphs Inputting and interrogating data	**Unit 5.4 Databases** – 4 lessons (Purple Mash) • To learn how to search for information in a database. • To contribute to a class database. • To create a database around a chosen topic.	Work with organisation Organising data bases clearly Able to ask and answer questions based on the database.	Arrange Avatar Chart Collaborative Data Database Database report Field Group Record Search Sort Statistics
	Unit 5.5 Game Creator		
Stop motion animation Processes involved in creating a stop motion animation Use of sounds, backgrounds and effects	**Unit 5.5 Game Creator** - 5 lessons (Purple Mash) • 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.	Creation of a more complex game with detailed instructions allowing others to play. Support peers in problem solving issues and improving experiences. Insert images from internet removing background and create own characters Create multi level games	Animation Computer game Customise Evaluation Image Instructions Interactive Screenshot Texture Perspective Playability

Year 5 SUMMER

Key Theme:

Unit 5.6 3D Modelling (Purple Mash) **Applying through online resources such as Tinkercad or Sketch Up**

National Curriculum:

Unit 5.6   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

Learning Theme:

Children will learn to use 2Design and make tool. They will be designing printing and making 3D models. They will also design make and evaluate their own game to share with their peers.

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 3D Modelling		
Recap the themed art and 3d art used in game creator Understand animating 3d characters	**Unit 5.6 3D Modelling – 4 lessons (Purple Mash)** • 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. Apply skills developed through 3d modelling unit in programme available online **3D Modelling online application** (Herts Scheme – 2-3 lessons (Online resource) **Using programme such as Tinkercad or SketchUp** • To be able to use the basic tools of Sketch Up • To understand how to use Sketch Up to draw basic shapes • To explore the effect of moving points when designing. • To design a 3D Model to fit certain criteria.	Using the geometric shapes and the addition of up to 24 points, design the recognisable form od a building and evaluate, refine and edit to suit the design brief	2D 3D CAD Pattern fill Design brief Points 3D printing Net Template Align Angle CAD Axis Duplicate Export Flip Import Pan Rotate

Yorke Mead Primary School
COMPUTING CURRICULUM

Word Processing MS Word			
Understanding the tools on the ribbon Writing for different purposes Effective structure of text Presenting information Inserting images	**Unit 5.8 Word Processing with Microsoft Word** (6 lessons) • 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 a 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 headings and columns	Explore full functionality of Word Experiment with wrapping text creating different effects Consider the visual appeal of their document	Bulleted lists Captions Copy and paste Copyright Cps Lock Creative comments Cursor Document Fone Formatting Hyperlink Page orientation Readability Text wrapping Word Art Word processing tool

Yorke Mead Primary School
COMPUTING CURRICULUM

Autumn Term: 13 weeks	Spring Term: 11 weeks	Summer Term: 14 weeks			38 weeks blocked

Spreadsheets	Online Safety			Blogging		Coding		Text Adventure	Networks		Microbit Revisit Coding		

Year 6 AUTUMN
Key Theme:
Unit 6.3 Spreadsheets (Purple Mash)
Unit 6.9 Spreadsheets (Google docs)
Unit 6.2 Onine Safety (Purple Mash)

National Curriculum:
Unit 6.3 and Unit 6.9 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.

Learning Theme:
Children know some uses of a spreadsheet tool. • Children can navigate around a spreadsheet using cell references. • Children can enter data into cells. • Children understand new vocabulary relating to spreadsheets: cells, columns, rows, cell names, sheets, workbook. Children can create a spreadsheet to answer a mathematical question relating to probability. • Children can take copy and paste shortcuts. • Children can problem solve using the count tool.

Yorke Mead Primary School
COMPUTING CURRICULUM

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 6.3 Spreadsheets **Unit 6.9 Spreadsheets (google docs)**		
Formula wizard Cell formatting Timer, random number and spin buttons Budget planner Line graphs	**Unit 6.3 and 6.9 Spreadsheets** – 9 lessons (Purple Mash and Herts Scheme/Purple Mash MS Excel) • To know what a spreadsheet looks like. • To navigate and enter data into cells. • To introduce some basic data formulae for percentages, averages, and max and min numbers. • To be able to use the calculation tool in Excel • To be able to use the function tools in Excel • To demonstrate how the use of spreadsheets can save time and effort when performing calculations. • To use a spreadsheet to model a situation. • To demonstrate how a spreadsheet can make complex data clear by manipulating the way it is presented. • To create a variety of graphs in sheets. • To apply spreadsheet skills to solving problems.	Pupils systematically collate, select and manipulate data. They can appropriately converts ad represent data explaining reasons for their choices. Actively use built in functions such as SUM function and apply formula for percentages, averages etc.	Active cell Average Biome Budget Calculation tool Cell Chart Column Column header Data Format Formula Formula bar Function tool IF functions Microsoft Excel Ribbon Row header Rows Spreadsheet Worksheet
	Unit 6.2 Online Safety		
SMART Rules Sources of support Sharing passwords Image Manipulation Reliability	**Unit 6.2 Online Safety** – 3 lessons (Purple Mash) • 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.	Pupils routinely look for ways to verify validity, enter keywords with most suitable results,, have an in-depth understanding of risk and feel responsibility towards others	Data analysis Digital footprint Inappropriate Location sharing Password PEGI rating

	• 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.	when sharing and communicating online	Phishing Print Screen Secure websites Screen time Spoof

Year 6 SPRING

Key Theme :

Unit 6.4 Blogging (Purple Mash and Herts scheme Unit)

6.1 Coding (Purple Mash)

National Curriculum:

Unit 6.4 Blogging Purple Mash - 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.

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*.

Unit 6.1 Coding

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.

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.

Learning Theme:

They know the school's Online Safety rules and are proactive in encouraging other children to keep safe online. Children will build on their own coding knowledge learnt through each year from year 1. This will provide the children with the opportunity to create their own adventure game. The blogging unit of work uses the Purple Mash tool 2Blog and is designed to help children learn the basic principles of creating and maintaining a blog in a controlled and safe environment. Using 2Blog, this unit will give children a basic understanding of how to plan, create and present their own blog. For more information about managing 2Blog,

Previous Learning To be reinforced	Core Learning Intentions	Extension Opportunities	Key Vocabulary
	Unit 6.4 Blogging (Purple Mash and Herts scheme Unit)		
SMART Rules Sharing passwords Image manipulation Reliability Responsibility to others when sharing Sources of support	**Unit 6.4 Blogging – 4 lessons (Purple Mash and Herts scheme Unit)** • To identify the purpose of writing a blog. • To identify the features of a successful blog. • To plan the theme and content for a blog. • To understand how to write a blog and a blog post. • To consider the effect upon the audience of changing the visual properties of the blog. • To understand how to contribute to an existing blog. • To understand how and why blog posts are approved by the teacher. • To understand the importance of commenting on blogs.	Able to critique a good blog and create blogs for a range of purposes.	Approval Archive Blog Blog post Collaborate Commenting Vlog
	6.1 Coding		
Efficient coding Simulating a physical system Friction and functions Introducing strngs Text variables and concatenation	**6.1 Coding – 6 lessons (Purple Mash)** • 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.	Able to use skills of abstraction and decomposing to write a programm testing and debugging their programme as they go.	Action Algorithm Command Co-ordinates Decomposition Debug/debugging Event Execute/run Flowchart

Yorke Mead Primary School
COMPUTING CURRICULUM

Year 6 SUMMER

Key Theme:

Unit 6.5 Text adventures
Unit 6.6 Networks
 Microbit – revisit coding

National Curriculum:

Unit 6.5 Text adventures
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.
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.

Unit 6.6 Networks
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

Learning Theme:
Children will be learning to create their own story based adventure games including elements of coding. Children will also learn how the internet works through research and discuss what they feel the future might hold.

Previous Learning To be reinforced	Core Learning Intentions		Extension Opportunities	Key Vocabulary
	Unit 6.5 Text adventures			
Familiarity with 2 Code Planning and designing for logical outcome Debugging	**Unit 6.5 Text adventures** – 4 lessons (Purple Mash) • 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 read and understand given code for a text adventure game		Turn a simple story with 3 or more levels of decision making Step through code and follow the flow of execution	Text-based adventure Debug/debugging Sprite Selection

	• To debug and improve a text adventure game	Debug given adventures and implement more challenging codes	Function Flow of control Step through
Unit 6.6 Networks			
Understanding of 2way communication technologies Recognise 2 way communication via WWW Understand hardware components Have a basic understanding of AI	**Unit 6.6 Networks** – 3 lessons (Purple Mash) • To learn about what the Internet consists of. • To find out what a LAN and a WAN are. • To find out how the Internet is accessed in school. • To research and find out about the age of the Internet. • To think about what the future might hold.	Know the difference between the internet and World Wide Web Explain differences between two network types such as LAN, WAN, WLAN abd SAN	Hub/Switch Internet LAN -local area network Network Router WAN – wide area network WiFi WWW – world wide web
Unit 6.8 Understanding Binary			
Efficient Coding Complex programs Flowcharts and control simulations	**Unit 6.8 Binary -** 4 lessons (Purple Mash) *Taught as part of maths sessions* • 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.	Will be able to confidently explain how the binary system works. Will be able to count up from 0 in binary as well as convert decimal numbers into binary using the 'division by two' method	Base 2 Bit Digit Integer Switch Base 10 Transistor

Yorke Mead Primary School
COMPUTING CURRICULUM

Year Group									
Year One	Online safety √	Grouping & sorting	Pictograms √	Lego builder √	Maze explorer √	Animated story books √	Coding √	Spreadsheets √	Technology outside school √
Year Two	Coding √	Online safety √	Spreadsheets √	Questioning √	Effective searching √	Creating pictures √	Making music √	Presenting ideas √	
Year Three	Coding √	Online safety √	Spreadsheets √	Touch Typing	Email √	Branching databases √	Simulations	Graphing This is covered through maths and science	Presenting √
Year Four	Coding √	Online safety √	Spreadsheets √	Writing for different audiences √	Logo √	Animation Covered in Year 3 through stop motion on Ipad	Effective searching	Hardware Invest / Making music / Intro AI (opt)	
Year Five	Coding √	Online safety √	Spreadsheets	Databases	Game creator √	3D Modelling √	Concept maps	Word processing √	External devices
Year Six	Coding √	Online safety √	Spreadsheets √	Blogging √	Text adventures √	Networks √	Quizzing	Understanding Binary √	Spreadsheets (Excel) √

√