

The intent of the ICT curriculum at NRHS

At NRHS the primary ICT curriculum intends to enable our pupils to become digitally literate so that they can safely participate in the digital world

Key Stage 1

We intend for pupils to start exploring algorithms and simple programs. The pupils will be encouraged to use logical reasoning and to predict the behaviour of simple programming tools. We intend for our pupils to use technology purposefully and to recognise the uses of IT beyond school. Our pupils will be taught how to use technology safely and respectfully.

Key Stage 2

We intend to build on the children's knowledge of algorithm enabling them to design, write and debug programs. The pupils will develop their knowledge and understanding of computer networks. Pupils will collect, analyse, evaluate and present data and information. We continue to learn how to use technology safely and respectfully.

Curriculum Information - ICT

Year 1	Topic/Unit Objectives	Knowledge to be taught	Big picture cross curriculum links
Sept-Oct (Term 1.1)	Online safety exploring Purple mash	<ul style="list-style-type: none"> To login safely and remember to log out To use icons to open, print and save work To add pictures and text to work Recognise common uses of information technology beyond school 	
Oct-Dec (Term 1.2)	Grouping and Sorting Pictograms	<ul style="list-style-type: none"> To understand that data can be represented in picture format to record results 	<ul style="list-style-type: none"> Links to science - pattern seeking; identifying, classifying and grouping. Links to Horticulture - collecting data. Links to Math - place value and comparing quantities and numbers.
Jan-Feb (Term 2.1)	Lego builders Maze Explorers	<ul style="list-style-type: none"> To follow or create simple accurate instructions To understand how the order of instructions affect the results 	
Feb-April (Term 2.2)	Spread sheets	<ul style="list-style-type: none"> Introduction to spread sheets To use tools in 2calculate 	<ul style="list-style-type: none"> Links to Horticulture - creating a spread sheet of seeds we will use as we prepare for planting. Math's – positional language Links to Science - Classifying and animals into groups.
April-May (Term 3.1)	Coding	<ul style="list-style-type: none"> To follow a simple set of instructions To create a simple program 	<ul style="list-style-type: none"> Links to Food tech – create a simple set of instruction on how to make a healthy sandwich.
May-July (Term 3.2)	Animated story books	<ul style="list-style-type: none"> To be introduced to eBooks and use additional features to enhance their stories 	<ul style="list-style-type: none"> Links to English - stories with a familiar setting. Writing and following instructions, storytelling – the map of a story. Links to PSHE - create a animation of feelings.

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Year 2		Knowledge to be taught	Big picture cross curriculum links
Sept-Oct (Term 1.1)	Online safety	<ul style="list-style-type: none"> To know how to use the search tool Introduction to emailing How to stay safe online 	
Oct-Dec (Term 1.2)	Spread sheets	<ul style="list-style-type: none"> Reviewing prior use of spread sheets Using the copying and pasting tools To create tables or block graphs 	<ul style="list-style-type: none"> Links to Maths - Collecting data in tallies, tables and pictograms
Jan-Feb (Term 2.1)	Questioning	<ul style="list-style-type: none"> To understand how pictograms are used to answer simple questions To use yes or no questions to create a database 	<ul style="list-style-type: none"> Links to Science - sorting and classifying
Feb-April (Term 2.2)	Effective searching	<ul style="list-style-type: none"> To understand terminology and gain a better understanding of searching and the internet 	<ul style="list-style-type: none"> Purposefully navigate sites and search for information relating to different class topics.
April-May (Term 3.1)	Creating pictures Making music	<ul style="list-style-type: none"> Introduction to 2paint and explore impressionist styles of art To make music digitally 	
May-July (Term 3.2)	Presenting ideas	<ul style="list-style-type: none"> To explore ways of how to present ideas digitally 	<ul style="list-style-type: none"> Produce range of documents linked to topics and share with wider audience Links to Maths - Collecting data in tallies, tables and pictograms, using a power point to present findings.

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Year 3	Topic/Unit Objectives	Knowledge to be taught	Big picture cross curriculum links
Sept-Oct (Term 1.1)	Coding	<ul style="list-style-type: none"> To review coding vocabulary To design and write programs To know what debugging means 	
Oct-Dec (Term 1.2)	Online Safety	<ul style="list-style-type: none"> To know what makes us safe and know where to go if we see inappropriate content or have had contact from others To learn about age restriction symbols 	
Jan-Feb (Term 2.1)	Spread sheets Touch - Typing	<ul style="list-style-type: none"> To create Pie Charts and bar graphs To use more advanced calculate tools Introduction to typing terminology To practise and improve typing skills 	
Feb-April (Term 2.2)	Email	<ul style="list-style-type: none"> To think about different methods of communications To respond and open emails To learn how to email safely How to add attachments 	<ul style="list-style-type: none"> Links to English - Exploring ways we communicate before technology. How dairies, news papers were written on paper and how we use computers, phones today to read news or share and record events
April-May (Term 3.1)	Branching databases Simulations	<ul style="list-style-type: none"> To use a database to sort objects To look at what Simulations are 	<ul style="list-style-type: none"> Links to Geography – where in the world.
May-July (Term 3.2)	Graphing	<ul style="list-style-type: none"> To enter data to answer questions or investigate results 	

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Year 4	Topic/Unit Objectives	Knowledge to be taught	Big picture cross curriculum links
Sept-Oct (Term 1.1)	Coding	<ul style="list-style-type: none"> To review coding tools and vocabulary To develop skills through a range of activities on purple mash 2code 	
Oct-Dec (Term 1.2)	Online safety	<ul style="list-style-type: none"> To understand how to protect themselves online Understand about a digital foot print To understand about the term plagiarism To understand the influences of technology on health and the environment. 	<ul style="list-style-type: none"> Links to PSHE - making responsible choices, and taking action for yourself and others.
Jan-Feb (Term 2.1)	Spread sheets	<ul style="list-style-type: none"> To explore formula wizard tools on purple mash to create graphs and budgeting sheets 	<ul style="list-style-type: none"> Links to Food tech - Writing meal plans and shopping lists using spread sheets.
Feb-April (Term 2.2)	Writing for different Audiences	<ul style="list-style-type: none"> How to explore font size, produce news reports and write a community campaign 	<ul style="list-style-type: none"> Links to English – Non-Chronological reports.. Links to PSHE - pupils to know the importance of hand washing. To create a poster (purple mash). Links to Science - Appliances that uses electricity in homes and how to keep safe (purple mash)
April-May (Term 3.1)	Logo and animation	<ul style="list-style-type: none"> To learn the language of logo To create letters and to use the repeat function to build in logo 	<ul style="list-style-type: none"> Design & technology / art – design a product box
May-July (Term 3.2)	Effective searching Hardware Investigators	<ul style="list-style-type: none"> To locate information on a search page To use search effectively to find information To understand or recall the different parts of a computer 	<ul style="list-style-type: none"> Links to Science - Scientists and investors. Who invented the computer?

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Year 5	Topic/unit objectives	Knowledge to be taught	Big picture cross curriculum links
Sept-Oct (Term 1.1)	Coding	<ul style="list-style-type: none"> A review of the coding vocabulary To use Sketch or storyboard to produce a simple program To review the variable in 2code To explore the commands of a program 	
Oct-Dec (Term 1.2)	Online safety	<ul style="list-style-type: none"> To gain a greater understanding of digital content To know how to secure passwords To learn how to reference sources in their work 	<ul style="list-style-type: none"> Links to PSHE - pupils to know where to report concerns and get support with online issues.
Jan-Feb (Term 2.1)	Spread sheets	<ul style="list-style-type: none"> To explore the conversions of measurement To develop the use of the count tool To learn how to use a spread sheet to plan events 	
Feb-April (Term 2.2)	Databases	<ul style="list-style-type: none"> To learn how to search for information on a database To create a database around a chosen topic 	<ul style="list-style-type: none"> Links to Science - Classifying objects according to their properties.
April-May (Term 3.1)	Concept maps	<ul style="list-style-type: none"> To understand the need for visual representation To understand and use correct vocabulary To how to use a concept map 	<ul style="list-style-type: none"> Science – animation for scientific concept
May-July (Term 3.2)	Game creator Modelling	<ul style="list-style-type: none"> How to create a scene and environment A introduction to 2design tools on Purple Mash 	



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Year 6	Topic/unit objectives	Knowledge to be taught	Big picture cross curriculum links
Sept-Oct (Term 1.1)	Coding	<ul style="list-style-type: none"> With a developed knowledge of planning and designing programs. Children will now look more in-depth at the functions in 2code through a range of activities. 	
Oct-Dec (Term 1.2)	Online safety	<ul style="list-style-type: none"> To understand the risks of mobile devices To be able to identify secure sites while protecting our digital footprint. To know how to identify positive and negative influences of technology on health and the environment. 	<ul style="list-style-type: none"> Links to English – Anti bullying
Jan-Feb (Term 2.1)	Spread sheets	<ul style="list-style-type: none"> Exploring Probability The use of spreadsheets in 'real-life' 	<ul style="list-style-type: none"> Links to Food tech – Writing meal plans and shopping lists for a real life event.
Feb-April (Term 2.2)	Blogging	<ul style="list-style-type: none"> To identify the purpose of a blog To understand how to write a blog Online safety 	
April-May (Term 3.1)	Text Adventures	<ul style="list-style-type: none"> To find out what a text adventure is Introduce map-based text to use code To create their own text based adventure 	
May-July (Term 3.2)	Networks Quizzing	<ul style="list-style-type: none"> To find out what children know about the internet To find out what a LAN and a WAN are. To research the past and present use of the internet To explore 2Quiz on Purple Mash. To learn how to use the question types and games 	