



## ICT Coverage and Progression of Substantive and Disciplinary Skills and Knowledge

### EYFS, Key Stage 1&2 2024 - Version 3

#### Introduction:

*By the time pupils leave Penistone St John CE Primary School, we aim to develop pupils who are responsible, confident and creative users of technology, who apply computational thinking beyond the Computing curriculum. They will become digitally literate and are active participants in a digital world. They will know how to stay safe whilst using technology and, on the internet, minimising risk to themselves and others. It is vital that all children understand and follow our agreed E-Safety rules and know who to contact if they have concerns, including the use of report buttons. Our children will have had repeated practical experience writing computer programs to solve problems, including logic & algorithms. They will have the ability to ask and answer questions through collecting, analysing, evaluating and presenting data and information. Ultimately, they will have a clear understanding how digital networks work and the services they provide. This will enable them to use search options effectively whilst understanding the need to evaluate the relevance of content. The children will be respectful, responsible and competent digital citizens; they will have the knowledge to support themselves and others online.*

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### Overview of computing curriculum 23/24:

Year Group	Digital Literacy (Y1/3/6 – Spring 1, Y2/4/5 – Spring 2)	Information Technology - to be split: 3x data and 3x office skills (Summer 2)	Microsoft Office Tools	Computer Science – Programming (Summer 1 – Subject Focus)
<b>Nursery</b>	<i>Examples of provision opportunities:</i> Pushing buttons – to know that by pressing a button can start and stop a function such as a torch/music/light/game	<i>Examples of provision opportunities:</i> Computers- To understand that we record information on the computer (i.e., class register) To understand that we can see photographs taken on the screen to celebrate our learning.	<b>NA</b>	<i>Examples of provision opportunities:</i> Remote control cars – to take the car on a planned journey around the setting
<b>Reception</b>	<i>Examples of provision opportunities:</i> Creating Media – using an ipad to take photographs in the setting	<i>Examples of provision opportunities:</i> Computers To understand that we record information on the computer to inform others (i.e., dinner choices/register). Using computer programs to support learning.	<b>NA</b>	<i>Examples of provision opportunities:</i> Bee Bots – to program a bee bot to travel on a set path
<b>1</b>	Creating Media – Digital Painting <a href="https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting">https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting</a>	Computing systems and networks – technology around us <a href="https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us">https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us</a>	WORD basics:	Programming A - Making a Robot (potentially starting at Lesson 3 – previous covered in EYFS) Programming B - ScratchJr (4 weeks – intro to scratch – supports Y2 learning)
<b>2</b>	Creating Media – Digital Photography <a href="https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography">https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography</a>	Data and information – pictograms <a href="https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms">https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms</a>	WORD Recap basics and introduce...	Programming B - Programming Quizzes <a href="https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes">https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes</a>
<b>3</b>	Creating Media – Stop-frame animation <a href="https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation">https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation</a>	Data and information – branching databases <a href="https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases">https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases</a>	Powerpoint Basics	Programming A - Sequencing Sounds (making a music instrument – music using technology link) <a href="https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music">https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music</a>



<b>4</b>	Creating Media – Audio production <a href="https://teachcomputing.org/curriculum/key-stage-2/creating-media-audio-editing">https://teachcomputing.org/curriculum/key-stage-2/creating-media-audio-editing</a>	Data and information – data logging <a href="https://teachcomputing.org/curriculum/key-stage-2/data-and-information-data-logging">https://teachcomputing.org/curriculum/key-stage-2/data-and-information-data-logging</a>	Powerpoint recap basics and introduce...	Programming B - Repetition in Games <a href="https://teachcomputing.org/curriculum/key-stage-2/programming-b-repetition-in-games">https://teachcomputing.org/curriculum/key-stage-2/programming-b-repetition-in-games</a>
<b>5</b>	Creating Media – Video Production <a href="https://teachcomputing.org/curriculum/key-stage-2/creating-media-video-editing">https://teachcomputing.org/curriculum/key-stage-2/creating-media-video-editing</a>	Data and information – introduction to spreadsheets (Lessons 1-3) <a href="https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets">https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets</a>	Publisher basics+	Programming B - Selection in Quizzes <a href="https://teachcomputing.org/curriculum/key-stage-2/programming-b-selection-in-quizzes">https://teachcomputing.org/curriculum/key-stage-2/programming-b-selection-in-quizzes</a>
<b>6</b>	Creating Media – Web page creation <a href="https://teachcomputing.org/curriculum/key-stage-2/creating-media-video-editing">https://teachcomputing.org/curriculum/key-stage-2/creating-media-video-editing</a>	Data and information – introduction to spreadsheets (Lessons 4-6) <a href="https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets">https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets</a>	Recap WORD, Powerpoint and Publisher	Programming A - Variables in Games <a href="https://teachcomputing.org/curriculum/key-stage-2/programming-a-variables-in-games">https://teachcomputing.org/curriculum/key-stage-2/programming-a-variables-in-games</a>

**Progression in ICT Skills and Knowledge**

<b>Year 1: Computing Systems and networks – Technology around us, (Summer 2)</b>	
<p><b>Main ICT Focus and LO:</b> Learners will develop their understanding of technology and how it can help them in their everyday lives. They will start to become familiar with the different components of a computer by developing their keyboard and mouse skills. Learners will also consider how to use technology responsibly.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To explain that technology is something that can help us</li> <li>• To identify examples of technology</li> <li>• To explain how examples of technology help us</li> <li>• To recognise that a computer is an example of technology</li> </ul>	<ul style="list-style-type: none"> <li>• To choose a piece of technology to do a job</li> <li>• To recognise that some technology can be used in different ways</li> <li>• To identify the main parts of a computer</li> <li>• To use a mouse in different ways</li> </ul>
Sticky Knowledge:	Vocabulary:



<ul style="list-style-type: none"> <li>• I can identify technology around me and explain how it helps us</li> <li>• I can name the main parts of a computer</li> <li>• I can use a mouse to click and drag</li> <li>• I can type my name on a computer</li> <li>• I can save my work to a file and open it again</li> </ul>	Technology, computer, mouse, trackpad, keyboard, screen, double-click, typing,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
<ul style="list-style-type: none"> <li>• To use a keyboard to type</li> <li>• To use the keyboard to edit text</li> </ul>	•
Prior learning to build on:	Future linked learning
• Introduction to technology within EYFS	• Y2 Computer systems and networks unit, IT around us

<b>Year 2 Data and Information- Pictograms</b>	
<p><b>Main ICT Focus and LO:</b> Learners will begin to understand what the term data means and how data can be collected in the form of a tally chart. They will learn the term 'attribute' and use this to help them organise data. They will then progress onto presenting data visually using software. Learners will use the data presented to answer questions.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To use pictograms to answer single-attribute questions</li> <li>• To suggest appropriate headings for tally charts and pictograms</li> <li>• To compare objects that have been grouped by attribute</li> <li>• Can explain what the pictogram shows</li> </ul>	<ul style="list-style-type: none"> <li>• To show I can enter data onto a computer</li> <li>• To use a computer to view data in different formats</li> <li>• To use pictograms to answer single-attribute questions</li> <li>• Can use a tally chart to create a pictogram</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can record data in a tally chart</li> <li>• I can use a tally chart to create a pictogram</li> <li>• I can use pictograms to answer simple questions about objects</li> <li>• I can explain what the pictogram shows</li> </ul>	More than, less than, most, least, organise, data, object, tally chart, votes, total, Pictogram, enter, compare, objects, count , explain, more common, least common



Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
	<p><b>Building on Year 1 number and place value:</b></p> <ul style="list-style-type: none"> <li>-Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: 'equal to', 'more than', 'less than' ('fewer'), 'most', 'least'</li> </ul> <p><b>Year 2 Maths:</b></p> <ul style="list-style-type: none"> <li>-interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li> <li>-ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li> <li>-ask and answer questions about totalling and comparing categorical data</li> </ul>
Prior learning to build on:	Future linked learning
It builds on the Year 1 Data and Information unit where learners labelled objects and grouped them based on different properties	In Year 3 learners develop their understanding of attributes (properties) using branching databases to structure data according to different object attributes.

<b>Year 3: Data and Information- Branching databases</b>	
<b>Main ICT Focus and LO:</b> Learners 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. Learners will create physical and on-screen branching databases.	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To investigate questions with yes/no answers</li> <li>• To identify attributes that you can ask yes/no questions about</li> <li>• To select an attribute to separate objects into two similarly sized groups</li> </ul>	<ul style="list-style-type: none"> <li>• To create questions with yes/no answers</li> <li>• To choose questions that will divide objects into evenly sized subgroups</li> <li>• To repeatedly create subgroups of objects</li> </ul>
Sticky Knowledge:	Vocabulary:

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<p>I can investigate questions with yes/no answers</p> <p>I can create two groups of objects separated by one attribute</p> <p>I can select objects to arrange in a branching database</p> <p>I can group objects using my own yes/no questions</p> <p>I can test my branching database to see if it works</p>	<p>Attribute, value, questions, table, objects</p> <p>Branching database, database, attribute, equal, even, separate</p>
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
<p>This unit progresses learners' knowledge and understanding of the categories of data handling, with a particular focus on implementation. It builds on their knowledge of data and information from key stage 1.</p>	

<b>Year 4: Data and Information- data logging</b>	
<p><b>Main ICT Focus and LO:</b> In this unit, learners will consider how and why data is collected over time. Learners 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. Learners will collect data as well as access data captured over long periods of time.</p>	
<p>By the end of this unit, children should <b>know:</b> (<i>substantive knowledge</i>)</p>	<p>By the end of this unit, children should <b>be able to:</b> (<i>disciplinary knowledge and skills</i>)</p>
<ul style="list-style-type: none"> <li>• To suggest questions that can be answered using a table of data</li> <li>• To identify data that can be recorded over time</li> <li>• To identify that sensors are input devices</li> <li>• To recognise that a sensor can be used as an input device for data collection</li> </ul>	<ul style="list-style-type: none"> <li>• To use a digital device to collect data automatically</li> <li>• To choose an appropriate timeframe when collecting data automatically</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can choose a data set to answer a given question</li> <li>• I can use data from a sensor to answer a given question</li> <li>• I can identify the intervals used to collect data</li> </ul>	<p>Data, table, layout, Input device, sensor, data logger, logging, data point, interval</p>



• I can talk about the data that I have captured	
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
	<p><b>Science – Lower key stage 2/Year 4</b></p> <ul style="list-style-type: none"> <li>• Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>• They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data.</li> </ul>
Prior learning to build on:	Future linked learning
This unit progresses learners’ knowledge and understanding of data and how it can be collected over time to answer questions. Specifically, it builds on the concept of answering questions with data which is first introduced in the KS1 data and information units.	Learners are also introduced to data in tables and graphs, knowledge they will build on in the Year 5 and the Year 6 unit (spreadsheets).

<b>Year 5: Data and Information- Introduction to Spreadsheets</b>	
<p><b>Main ICT Focus and LO:</b> This unit introduces the learners to spreadsheets. They will be supported in organising data into columns and rows to create their own data set. Learners 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. Learners will follow up this work in Year 6 to conclude their learning on Spreadsheets.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To identify questions that can be answered using spreadsheet data</li> <li>• To explain what an item of data is in a spreadsheet</li> <li>• To outline that there are different software tools to work with data</li> <li>• To explain how the data type determines how a spreadsheet can process the data</li> </ul>	<ul style="list-style-type: none"> <li>• To represent data within different cells on a spreadsheet</li> <li>• To calculate data using a formula for each operation</li> </ul>



<ul style="list-style-type: none"> <li>• To explain that formulas can be used to produce calculated data</li> </ul>	
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can suggest how to structure my data</li> <li>• I can enter data into a spreadsheet</li> <li>• I can apply an appropriate format to a cell</li> <li>• I can construct a formula in a spreadsheet</li> <li>• I can identify that changing inputs changes outputs</li> </ul>	Data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, input, output,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Typing data into cells	<p><b>Number – addition, subtraction, multiplication, and division:</b></p> <ul style="list-style-type: none"> <li>• Solve problems involving addition, subtraction, multiplication, and division</li> </ul> <p><b>Statistics:</b></p> <ul style="list-style-type: none"> <li>• Interpret and construct pie charts and line graphs, and use these to solve problems</li> <li>• Calculate and interpret the mean as an average</li> </ul>
Prior learning to build on:	Future linked learning
This unit progresses students’ knowledge and understanding of data, and teaches them how to organise and modify data within spreadsheets. Specifically, learners will have experienced data in tables and charts in the Y4 data logging and Y5 branching database units.	Follow-up unit on Spreadsheets in Year 6

<b>Year 6: Data and Information - Spreadsheets (part 2)</b>	
<p><b>Main ICT Focus and LO:</b> This unit follows on from Year 5 Introduction to Spreadsheets, using the pupils recall and then furthering their knowledge. Learners will be taught how to apply formulas that include a range of cells and apply formulas to multiple cells by duplicating them. Learners will use spreadsheets to plan an event and answer questions. Finally, learners will create charts, and evaluate their results in comparison to questions asked.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )



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<ul style="list-style-type: none"> <li>• To explain that formulas can be used to produce calculated data</li> <li>• To recognise cells can be linked</li> <li>• To recognise that a cell's value automatically updates when the value in a linked cell is changed</li> <li>• To evaluate results in comparison to the question asked</li> </ul>	<ul style="list-style-type: none"> <li>• To use functions to create new data</li> <li>• To use existing cells within a formula</li> <li>• To choose suitable ways to present spreadsheet data</li> <li>• To use a spreadsheet to plan an event with costings</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can calculate data using different operations</li> <li>• I can create a formula which includes a range of cells</li> <li>• I can use a spreadsheet to answer questions</li> <li>• I can explain why data should be organised</li> <li>• I can apply a formula to calculate the data I need to answer questions</li> </ul>	<p><b>Recap on Year 5 vocabulary:</b> Data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, input, output,</p> <p><b>Introduce:</b> operation, range, duplicate, sigma, propose, data set, organised, chart, evaluate, results, comparison, software, tools,</p>
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Typing data into cells on a spreadsheet	<p><b>Number – addition, subtraction, multiplication, and division:</b></p> <ul style="list-style-type: none"> <li>• Solve problems involving addition, subtraction, multiplication, and division</li> </ul> <p><b>Statistics:</b></p> <ul style="list-style-type: none"> <li>• Interpret and construct pie charts and line graphs, and use these to solve problems</li> <li>• Calculate and interpret the mean as an average</li> </ul>
Prior learning to build on:	Future linked learning
This unit progresses students' knowledge and understanding of data and teaches them how to organise and modify data within spreadsheets. Specifically, learners will have experienced data in tables and charts in the Y4 data logging unit and Y5 Introduction to Spreadsheets unit.	

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Year 1: Digital Literacy- Digital Painting	
<p><b>Main ICT Focus and LO:</b> Learners will develop their understanding of a range of tools used for digital painting. They then use these tools to create their own digital paintings, while gaining inspiration from a range of artists' work. The unit concludes with learners considering their preferences when painting with and without the use of digital devices.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To explain what different freehand tools do</li> <li>• To recognise computers can be used to create art</li> <li>• To decide when it's appropriate to use each tool</li> <li>• To compare painting using a computer with painting using brushes</li> </ul>	<ul style="list-style-type: none"> <li>• To create a picture using freehand tools</li> <li>• To use shape and line tools when precision is needed</li> <li>• To use the fill tool to colour an enclosed area</li> <li>• To use the undo button to correct a mistake</li> <li>• To combine a range of tools to create a piece of artwork</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can use the paint tools to draw a picture</li> <li>• I can use the shape and line tools effectively</li> <li>• I can create a picture in the style of an artist</li> <li>• I can choose appropriate paint tools and colours to recreate the work of an artist</li> <li>• I can change the colour and brush sizes</li> </ul>	paint program, tool, paintbrush, erase, fill, undo, Piet Mondrian, primary colours, shape tools, line tool, Henri Matisse, Wassily Kandinsky, tools, feelings, colour, brush style, Georges Seurat, pointillism, brush size,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Use of tool ribbon on paint application	<p><b>KS1 Art and Design</b>-Pupils should be taught:</p> <ul style="list-style-type: none"> <li>• To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space</li> <li>• About the work of a range of artists, craft makers, and designers, describing the differences and similarities between different practices and disciplines and making links to their own work</li> </ul>
Prior learning to build on:	Future linked learning
Learners should be familiar with: <ul style="list-style-type: none"> <li>• How to switch their device on</li> </ul>	



<ul style="list-style-type: none"> <li>• Usernames</li> <li>• Passwords</li> </ul>	
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<b>Year 2: Digital Literacy-Digital Photography</b>	
<b>Main ICT Focus and LO:</b> Learners will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real.	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To talk about how to take a photograph</li> <li>• To make choices when composing my photograph</li> <li>• To recognise features of a 'good' photograph</li> <li>• To explain the effect of light on a photograph</li> <li>• To recognise that photographs can be changed after they have been taken</li> </ul>	<ul style="list-style-type: none"> <li>• To capture a digital image</li> <li>• To take photographs in both landscape and portrait</li> <li>• To decide which photos to keep</li> <li>• To use zoom to change the composition of a photograph</li> <li>• To use simple editing tools to change the appearance of a photograph</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can explain what I did to capture a digital photo</li> <li>• I can explain why a photo looks better in portrait or landscape format</li> <li>• I can improve a photograph by retaking it</li> <li>• I can experiment with different light sources</li> <li>• I can use a tool to achieve a desired effect</li> <li>• I can identify which photos are real and which have been changed</li> </ul>	Device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
	<b>Art and design</b> <ul style="list-style-type: none"> <li>• To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space</li> </ul>
Prior learning to build on:	Future linked learning
	Learners will develop their photo editing skills in Year 4.



<b>Year 3: Digital Literacy-Stop-Frame animation</b>	
<b>Main ICT Focus and LO:</b> Learners 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.	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To explain that an animation is made up of a sequence of images</li> <li>• To identify that a capturing device needs to be in a fixed position</li> <li>• To recognise that smaller movements create smoother animation</li> </ul>	<ul style="list-style-type: none"> <li>• To plan an animation using a storyboard</li> <li>• To set up a work area with an awareness of what will be captured</li> <li>• To capture an image</li> <li>• To use the onion skinning tool to review subject position</li> <li>• To move a subject between takes</li> <li>• To review a captured sequence of frames as an animation and amend</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can explain how an animation/flip book works</li> <li>• I can create an effective stop-frame animation</li> <li>• I can create a storyboard</li> <li>• I can evaluate the quality of my animation</li> <li>• I can add other media to my animation</li> </ul>	Animation, flip book, frame, sequence, image, photograph, onion skinning, consistency, delete, evaluation, import, transition, media,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
	Learners will further develop their video editing skills in Year 5

<b>Year 4: Digital Literacy-Audio Production</b>
<b>Main ICT Focus and LO:</b> Learners will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Learners will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to

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<p>record audio themselves, learners will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, learners will evaluate their work and give feedback to their peers.</p>	
<p>By the end of this unit, children should <b>know</b>: (<i>substantive knowledge</i>)</p>	<p>By the end of this unit, children should <b>be able to</b>: (<i>disciplinary knowledge and skills</i>)</p>
<ul style="list-style-type: none"> <li>• To identify that an input device is needed to record sound</li> <li>• To identify that output devices are needed to play audio</li> <li>• To recognise that sound can be represented visually as a waveform</li> <li>• To recognise that audio can be layered so that multiple sounds can be played at the same time</li> <li>• To consider the results of editing choices made</li> </ul>	<ul style="list-style-type: none"> <li>• To record sound using a computer</li> <li>• To import audio into a project</li> <li>• To delete a section of audio</li> <li>• To change the volume of tracks in a project</li> </ul>
<p>Sticky Knowledge:</p>	<p>Vocabulary:</p>
<ul style="list-style-type: none"> <li>• I can use a computer to record audio</li> <li>• I can inspect the soundwave view to know where to trim my recording</li> <li>• I can arrange multiple sounds to create the effect I want</li> <li>• I can choose appropriate edits to improve my podcast</li> </ul>	<p>Audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, playback, selection, export, MP3, feedback</p>
<p>Word Processing/Touch Type Opportunities within the Unit:</p>	<p>Linked Learning Opportunities:</p>
	<p><b>Science – Year 4</b></p> <ul style="list-style-type: none"> <li>• <b>Sound:</b> Find patterns between the volume of a sound and the strength of the vibrations that produced it. Recognise that sounds get fainter as the distance from the sound source increases</li> </ul> <p><b>English – Year 4</b></p> <ul style="list-style-type: none"> <li>• <b>Writing – composition:</b> Plan their writing by discussing and recording ideas</li> <li>• <b>Writing:</b> Read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear</li> </ul>
<p>Prior learning to build on:</p>	<p>Future linked learning</p>



	Learners will explore combining audio with video in the 'Video editing' unit in Year 5.
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Year 5: Digital Literacy-Video Production	
<p><b>Main ICT Focus and LO:</b> Learners will learn how to create short videos by working in pairs or 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. Learners are guided with step-by-step support to take their idea from conception to completion. Learners will also learn about what actions to take if they see any inappropriate content online. At the conclusion of the unit, learners have the opportunity to reflect on and assess their progress in creating a video.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To explain the purpose of a storyboard</li> <li>• To recognise that filming techniques can be used to create different effects</li> <li>• To recognise the need to regularly review and reflect on a video project</li> <li>• To identify videos can be improved through and reshooting or editing</li> <li>• To recognise projects need to be exported to be shared</li> </ul>	<ul style="list-style-type: none"> <li>• To use different camera angles</li> <li>• To use pan, tilt and zoom</li> <li>• To determine what scenes will convey your idea</li> <li>• To choose to reshoot a scene or improve later through editing</li> <li>• To use split, trim and crop to edit a video</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can experiment with different camera angles</li> <li>• I can capture video using a range of filming techniques</li> <li>• I can create and save video content</li> <li>• I can explain how to improve a video by reshooting and editing</li> <li>• I can make edits to my video and improve the final outcome</li> </ul>	Video, audio, camera, talking head, panning, close up, microphone, lens, close up, mid range, long shot, moving subject, side by side, high angle, low angle, normal angle, storyboard, Import, split, trim, clip, edit, reshoot, Delete, trim, reorder, export, evaluate, share,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
	<p><b>Internet safety</b></p> <ul style="list-style-type: none"> <li>• Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour</li> </ul>



Prior learning to build on:	Future linked learning
The unit builds on the Year 4 unit 'Photo editing' where composition is introduced and the Year 3 unit 'Stop-frame animation' where learners explored some of the features of video production.	

Year 6 Digital Literacy-Web Page Creation	
<b>Main ICT Focus and LO:</b> Learners will be introduced to creating websites for a chosen purpose. Learners identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process, learners pay specific attention to copyright, fair use of media and creative commons, the aesthetics of the site, and navigation paths. This will enable the learners to understand how to be a respectful and responsible user of technology online.	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To recognise that web pages can contain different media types</li> <li>• To recognise that a website is a set of hyperlinked web pages</li> <li>• To recognise components of a web page layout</li> <li>• To consider the ownership and use of images (copyright)</li> <li>• To recognise the need for a navigation path</li> </ul>	<ul style="list-style-type: none"> <li>• To create a new blank web page</li> <li>• To add and set the style of text on a web page</li> <li>• To embed media in a web page</li> <li>• To insert hyperlinks between pages</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can discuss the different types of media used on websites</li> <li>• I can draw a web page layout that suits my purpose</li> <li>• I can say why I should use copyright-free images</li> <li>• I can add content to my own web page</li> <li>• I can make multiple web pages and link them using hyperlinks</li> </ul>	Website, web page, browser, media, Hypertext Markup Language (HTML), layout, header, media, purpose, Copyright, fair use, home page, evaluate, breadcrumb trail, navigation, hyperlink, subpage, external link, embed
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
<ul style="list-style-type: none"> <li>• Adding and formatting text to a webpage</li> <li>• Adding and adapting pictures and other media to a page</li> <li>• Use of hyperlinks</li> </ul>	<b>English links</b> Writing composition: Identifying the audience for and purpose of the writing, selecting the appropriate form, and using other similar writing as models for their own.



Prior learning to build on:	Future linked learning
This unit progresses students' knowledge and understanding of the following: digital writing, digital painting, desktop publishing, digital photography, and photo editing.	

**Programming Units at Penistone St Johns**

When programming, there are four levels which can help describe a project (known as levels of abstraction). Research suggests that this structure can support learners in understanding how to create a program and how it works:

- Task - what is needed
- Design - what it should do
- Code - how it is done
- Running the code - what it does

Spending time at the task and design levels before engaging in code-writing can aid learners in assessing the 'do-ability' of their programs. It also reduces a learner's cognitive load during programming.

<b>Year 1: Computer Science (Programming)- Moving A Robot (3 weeks/sessions)</b>	
<b>Main ICT Focus and LO:</b> Learners will be introduced 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 command for the floor robot 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.	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>● To run a command on a device</li> <li>● To identify several possible solutions/debug</li> <li>● To recall words that can be acted out</li> </ul>	<ul style="list-style-type: none"> <li>● To predict the outcome of a command on a device</li> <li>● To match a command to an outcome</li> <li>● To debug my program</li> </ul>



## Penistone St John The Baptist CE Primary School



Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can give directions using correct vocabulary</li> <li>• I can program a 'robot'</li> <li>• I can follow a set of simple instructions</li> <li>• I can debug my program</li> </ul>	Forwards, backwards, turn, clear, go, commands, directions, debug
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
	Introduction to Scratch Jnr- Year 1 Programming Quizzes (Scratch)- Year 2

<b>Year 1: Computer Science (Programming)- Introduction to Scratch Jnr (3 weeks/sessions?)</b>	
<p><b>Main ICT Focus and LO:</b> Learners will be introduced to on-screen programming through Scratch Jr. Learners will explore the way a project looks by investigating sprites and backgrounds. They will use programming blocks to use, modify, and create programs. Learners will also be introduced to the early stages of program design through the introduction of algorithms.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To explain what happens when I change a value</li> <li>• To build a simple program and run it</li> <li>• To debug my program</li> </ul>	<ul style="list-style-type: none"> <li>• To use commands to move a sprite</li> <li>• To use more than one block by joining them together</li> <li>• To predict the outcome of a command</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can write a simple program using Scratch Jr</li> <li>• I can join different blocks to make my sprite move</li> <li>• I can debug my program</li> </ul>	ScratchJr, Bee-Bot, command, sprite, compare, programming, programming area, Block, joining, command, Start block, run, program, background, delete, reset, algorithm, predict
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning



Moving a robot- Year 1	Scratch programming units- Year 2, 3, 4 and 5
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<b>Year 2: Computer Science (Programming)- Programming Quizzes</b>	
<b>Main ICT Focus and LO:</b> Learners begin to understand that sequences of commands have an outcome, and make predictions based on their learning. They use and modify designs to create their own quiz questions in Scratch Jr and realise these designs in Scratch Jr using blocks of code. Finally, learners evaluate their work and make improvements to their programming projects.	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To describe a series of instructions as a ‘sequence’</li> <li>• To use logical reasoning to predict the outcome of a program</li> </ul>	<ul style="list-style-type: none"> <li>• To choose a series of commands that can be run as a program</li> <li>• To trace a sequence to make a prediction</li> <li>• To create and debug a program that I have written</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can identify that a program needs to be started</li> <li>• I can change the outcome of a sequence of commands</li> <li>• I can decide which blocks to use to meet the design</li> <li>• I can create a program based on the new design</li> <li>• I can debug my program</li> </ul>	Sequence, command, program, run, start, outcome, predict, blocks, Sprite, algorithm, design, sequence, predict, Sprite, algorithm, blocks, design, sequence, predict, match, debug,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
This unit initially recaps on learning from the Year 1 Scratch Jr unit ‘Programming B – Programming animations’.	

<b>Year 3: Computer Science (Programming)- Sequencing Sounds</b>	
<b>Main ICT Focus and LO:</b> 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 learners. 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. Learners also apply stages of program design through this unit.	
By the end of this unit, children should <b>know</b> : ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to</b> : ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To identify that a program includes sequences of commands</li> <li>• To explain that the order of commands can affect a program's output</li> <li>• To identify that different sequences can achieve the same output/different output</li> </ul>	<ul style="list-style-type: none"> <li>• To build a sequence of commands</li> <li>• To combine commands in a program</li> <li>• To order commands in a program</li> <li>• To create a sequence of commands to produce a given outcome</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can explain that objects in Scratch have attributes (linked to)</li> <li>• I can create a sequence of connected commands</li> <li>• I can combine sound commands</li> <li>• I can decide the actions for each sprite in a program</li> <li>• I can implement my algorithm as code</li> </ul>	Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, code, run the code, debug, algorithm,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
This unit assumes that learners will have some prior experience of programming; the KS1 NCCE units cover floor robots and Scratch Jr.	

**Year 4: Computer Science (Programming)- Repetition in Games**

**Main ICT Focus and LO:** Learners will explore the concept of repetition in programming using the Scratch environment. The unit begins with a Scratch activity where learners can discover similarities between two environments. Learners 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.



By the end of this unit, children should <b>know</b> : ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to</b> : ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To explain that we can use a loop command in a program to repeat instructions</li> <li>• To explain that in programming there are indefinite loops and count-controlled loops</li> <li>• To explain that you can program a loop to stop after a specific number of times</li> <li>• To explain that an indefinite loop will run until the program is stopped</li> <li>• To justify when to use a loop and when not to</li> </ul>	<ul style="list-style-type: none"> <li>• To use an indefinite loop to produce a given outcome</li> <li>• To use a count-controlled loop to produce a given outcome</li> <li>• To plan a program that includes appropriate loops to produce a given outcome</li> <li>• To recognise tools that enable more than one process to be run at the same time (concurrency)</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can modify a snippet of code to create a given outcome</li> <li>• I can choose when to use a count-controlled and an infinite loop</li> <li>• I can evaluate the effectiveness of the repeated sequences used in my program</li> <li>• I can re-use existing code snippets on new sprites</li> <li>• I can develop my own design explaining what my project will do</li> </ul>	Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, infinite loop, count-controlled loop, costume, count-controlled loop, animate, costume, event block, duplicate, modify, algorithm, debug, evaluate,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
This unit builds on the KS1 NCCE units which cover floor robots and Scratch Jr, and Scratch is introduced in the Year 3 programming units.	

**Year 5: Computer Science (Programming)- Selection in Quizzes**

**Main ICT Focus and LO:** Learners will develop their knowledge of 'selection' by revisiting how 'conditions' can be used in programming, 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'.



<p>They represent this understanding in algorithms, and then by constructing programs in the Scratch programming environment. They learn how to write programs that ask questions and use selection to control the outcomes based on the answers given. They use this knowledge to design a quiz in response to a given task and implement it as a program.</p>	
<p>By the end of this unit, children should <b>know</b>: (<i>substantive knowledge</i>)</p>	<p>By the end of this unit, children should <b>be able to</b>: (<i>disciplinary knowledge and skills</i>)</p>
<ul style="list-style-type: none"> <li>• To relate that a count-controlled loop contains a condition</li> <li>• To compare a count-controlled loop with a condition-controlled loop</li> <li>• To explain that a condition-controlled loop will stop when a condition is met</li> <li>• To explain that selection can be used to branch the flow of a program</li> <li>• To explain that a loop can be used to repeatedly check whether a condition has been met</li> <li>• To explain the importance of instruction order in 'if... then... else...'</li> </ul>	<ul style="list-style-type: none"> <li>• To choose a condition to use in a program</li> <li>• To create a condition-controlled loop</li> <li>• To use a condition in an 'if... then...' statement to start an action</li> <li>• To use selection to switch program flow</li> <li>• To use 'if... then... else...' to switch program flow in one of two ways</li> </ul>
<p>Sticky Knowledge:</p>	<p>Vocabulary:</p>
<ul style="list-style-type: none"> <li>• I can modify a condition in a program</li> <li>• I can identify the condition and outcomes in an 'if... then... else...'</li> <li>• I can show that a condition can direct program flow in one of two ways</li> <li>• I can identify the outcome of user input in an algorithm</li> <li>• I can identify ways the program could be improved</li> </ul>	<p>Selection, condition, true, false, count-controlled loop, outcomes, conditional statement (the linking together of a condition and outcomes), algorithm, program, debug, input, implement,</p>
<p>Word Processing/Touch Type Opportunities within the Unit:</p>	<p>Linked Learning Opportunities:</p>
<p>Prior learning to build on:</p>	<p>Future linked learning</p>
<p>This unit builds on what learners will have experienced in programming using block-based construction (e.g. Scratch),</p>	



understand the concepts of 'sequence' and 'repetition', and have some experience of using 'selection'.	
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Year 6: Computer Science (Programming)- Variables in Games	
<p><b>Main ICT Focus and LO:</b> 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, learners experiment with variables in an existing project, then modify them, before they create their own project. In Lesson 4, learners focus on design. Finally, in Lesson 6, learners apply their knowledge of variables and design to improve their games in Scratch.</p>	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To identify examples of information that is variable, for example, a football score during a match</li> <li>• To explain that a variable can be used in a program, eg 'score'</li> <li>• To identify that variables can hold numbers (integers) or letters (strings)</li> <li>• To explain the importance of setting up a variable at the start of a program (initialisation)</li> </ul>	<ul style="list-style-type: none"> <li>• To identify a variable in an existing program</li> <li>• To choose a name that identifies the role of a variable to make it easier for humans to understand it</li> <li>• To decide where in a program to set a variable</li> <li>• To use a variable in a conditional statement to control the flow of a program</li> <li>• To use the same variable in more than one location in a program</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can identify examples of information that is variable</li> <li>• I can recognise that the value of a variable can be changed</li> <li>• I can make use of an event in a program to set a variable</li> <li>• I can create algorithms for my project</li> <li>• I can test the code that I have written</li> <li>• I can use variables to extend my game</li> </ul>	Variable, change, name, value, set, design, event, algorithm, code, test, debug, improve, evaluate,
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:



Prior learning to build on:	Future linked learning
This unit builds on prior experience of programming in Scratch. Specifically, pupils will be familiar with the programming constructs of sequence, repetition, and selection. These constructs are covered in the Year 3, 4, and 5 National Centre for Computing Education programming units respectively. Each year group includes at least one unit that focuses on Scratch.	

**Learning Microsoft Office Word Processing Programmes and Tools.**

The following units build up our children’s knowledge, skills and understanding of the main MS Office tools which can then be transferred and used within other subjects effectively when appropriate. Each unit builds on previous learning leading to being able to use all three programmes in Year 6 and beyond.

<b>Year 1: Microsoft Office/Word Processing Knowledge and Skills- Word basics (3 sessions)</b>	
<b>Main ICT Focus and LO:</b> Begin to understand how to use the basic functions of Microsoft Office Word	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To recognise the main aspects of the Microsoft Word interface</li> <li>• To know how to format text including changing font size and style, and how to apply text effects like bold, italics, and underline.</li> </ul>	<ul style="list-style-type: none"> <li>• To type simple sentences and learn basic editing functions such as backspace, delete, and how to use the undo button.</li> <li>• To format text including changing font size and style, and how to apply text effects like bold, italics, and underline.</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can open and close the Word application</li> <li>• I can type letters and words on to a blank document</li> <li>• I can use the backspace, delete and undo buttons</li> <li>• I can format the text in different ways</li> </ul>	<b>Word Processor</b> - A software application used for creating, editing, and formatting text documents. <b>Microsoft Office Word</b> - A popular word processing program developed by Microsoft. <b>Toolbar</b> - A graphical control element on the interface of a program that contains buttons or icons for commonly used functions. <b>Menu</b> - A list of options or commands available for selection in a software application. <b>Font</b> - A



	particular size, weight, and style of a typeface. <b>Format</b> - To arrange or design text in a certain way, such as changing its appearance, layout, or style.
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
	Word+ unit- Year 2 Powerpoint units- Years 3 & 4 Publisher units- Year 5

<b>Year 2: Microsoft Office/Word Processing Knowledge and Skills- Word basics + (3 sessions)</b>	
<b>Main ICT Focus and LO:</b> Revise how to use the basic functions of Microsoft Office Word and introduce how to use more advanced features of Word	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<p><b>Consolidate Year 1 aspects: To recognise the main aspects of the Microsoft Word interface</b>  <b>To know how to format text including changing font size and style, and how to apply text effects like bold, italics, and underline.</b></p> <p><u>Introduce:</u></p> <ul style="list-style-type: none"> <li>• To align text and adjust spacing</li> </ul>	<p><b>Consolidate Year 1 aspects: To type simple sentences and learn basic editing functions such as backspace, delete, and how to use the undo button.</b>  <b>To format text including changing font size and style, and how to apply text effects like bold, italics, and underline.</b></p> <p><u>Introduce:</u></p> <ul style="list-style-type: none"> <li>• To insert images from various sources and perform basic manipulation</li> <li>• To understand how to create lists using bullet points and numbers</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can recall the basic Word operations learnt in Year 1</li> <li>• I can change the spacing of my text</li> </ul>	<b>Alignment</b> - The positioning of text within a document, such as left, right, center, or justified. <b>Bold</b> - A formatting option to make text





<ul style="list-style-type: none"> <li>• I can insert images from different sources and adjust their size and position on the page</li> <li>• I can create lists using bullet points and numbers</li> </ul>	<p>appear bold and stand out. <b>Italic</b> - A formatting option to make text appear slanted or in italics. <b>Underline</b> - A formatting option to add a line underneath text. <b>Bullet Points</b> - A typographical symbol used to highlight items within a list. <b>Save</b> - To store a document or file on a computer or other storage medium. <b>Print</b> - To produce a physical copy of a document on paper using a printer. <b>Page Layout</b> - The arrangement of text, images, and other elements on a page.</p>
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
Year 1 Microsoft Word Basic knowledge and skills unit	Microsoft Powerpoint- Year 3

<b>Year 3: Microsoft Office/Word Processing Knowledge and Skills- Powerpoint basics (3 sessions)</b>	
<b>Main ICT Focus and LO:</b> Recap basics of using the basic functions of Microsoft Office Word and introduce Powerpoint	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<p><b>Recap Year 1 and 2 Microsoft Word aspects</b></p> <p><u>Introduce:</u></p> <ul style="list-style-type: none"> <li>• To understand what a presentation is and to open PowerPoint</li> <li>• To understand how to change text for clarity and visual appeal</li> </ul>	<p><b>Recap Year 1 and 2 Microsoft Word aspects</b></p> <p><u>Introduce:</u></p> <ul style="list-style-type: none"> <li>• To create a new presentation and choose a design</li> <li>• To add text to a slide and format it effectively using the different text tools</li> <li>• To insert, resize, reposition, and format images and shapes in a Powerpoint slide</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can recall the basic Word operations learnt in Year 1 and 2</li> <li>• I can add and format text on a slide (change font, size, and position)</li> </ul>	<p><b>Microsoft PowerPoint:</b> A software used for creating and presenting slide shows. <b>Slide:</b> A single page in a PowerPoint presentation. <b>Layout:</b> The arrangement of text, images, and other elements on a slide. <b>Title</b></p>

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<ul style="list-style-type: none"> <li>• I can add images from different sources and change it's size and position</li> <li>• I can change the slide design of my presentation</li> </ul>	<p><b>Slide:</b> The first slide in a presentation that typically includes the presentation title and author's name. <b>Bulleted List:</b> A list of items with each item preceded by a bullet point. <b>Font:</b> The design and size of the text in a slide. <b>Background:</b> The colour or image that appears behind the slide content.</p>
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
Year 1 and 2 Microsoft Word Basic knowledge and skills unit	Year 4 Powerpoint + unit Year 5 Publisher unit

<b>Year 4: Microsoft Office/Word Processing Knowledge and Skills- Powerpoint + (3 sessions)</b>	
<b>Main ICT Focus and LO:</b> Recap basics of using the basic functions of Microsoft Office Word and introduce Powerpoint	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<p><b>Recap Year 3 Powerpoint aspects</b></p> <p><u>Introduce:</u></p> <ul style="list-style-type: none"> <li>• To understand when and why to use animation and transition features enhance a presentation</li> </ul>	<p><b>Recap Year 3 Powerpoint aspects</b></p> <p><u>Introduce:</u></p> <ul style="list-style-type: none"> <li>• To explore and applying slide transitions and animations to enhance the presentation's visual impact</li> <li>• To present a Powerpoint slide show and use the presentation tools</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can recall the basic Powerpoint operations from Year 3</li> <li>• I can add animations and transitions to my slides</li> <li>• I can explain my choices of design, transitions and animations to enhance my slideshow</li> </ul>	<p><b>Consolidate Year 3 list.</b></p> <p><b>Introduce: Transition:</b> The way one slide changes to the next slide during a presentation. <b>Animation:</b> Effects applied to individual elements on a slide to make them appear or move in a specific way. <b>Present:</b> to show others your work in full screen mode. <b>Elements:</b></p>

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<ul style="list-style-type: none"> <li>I can effectively present a Powerpoint slideshow, using presentation tools</li> </ul>	different aspects of each slide. <b>Navigate:</b> the journey of your slideshow
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
Year 1 and 2 Microsoft Word Basic knowledge and skills unit Year 3 Powerpoint basics unit	Year 5 Publisher unit

<b>Year 5: Microsoft Office/Word Processing Knowledge and Skills- Publisher (3 sessions)</b>	
<b>Main ICT Focus and LO:</b> Recap basics of using the basic functions of Microsoft Office Word and introduce Powerpoint	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<b>Recap Year 3 and 4 main Powerpoint aspects</b>	<b>Recap Year 3 and 4 main Powerpoint aspects</b>
<ul style="list-style-type: none"> <li>To know the purpose of key tools and features in MS Publisher and understand the layout of the application.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to insert, format, and arrange text and images within a publication.</li> <li>To understand how to use and customise a template to create a personalised publication.</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>I can explain the main features of Publisher interface and how to use them</li> <li>I can add text and images to a blank file</li> <li>I can use a template and create a clear informative document</li> <li>I can explain the good features of my document and how it could be improved</li> </ul>	<b>MS Publisher:</b> A desktop publishing application used to create documents such as flyers, brochures, and newsletters. <b>Templates:</b> Pre-designed documents that can be customized for specific purposes. <b>Text box:</b> A container for text that can be moved and resized within a publication. <b>Insert:</b> To add elements such as pictures, shapes, or text to a publication. <b>Format:</b> To change the appearance of text or objects, such as font style, size, and colour.
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:

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Prior learning to build on:	Future linked learning
Year 1 and 2 Microsoft Word Basic knowledge and skills unit Year 3 and 4 Powerpoint unit	Year 6 consolidation unit on MS Word Processing tools

<b>Year 6: Microsoft Office/Word Processing Knowledge and Skills- MS Word Processing Programmes consolidation unit (3 sessions)</b>	
<b>Main ICT Focus and LO:</b> Recap basics of using the basic functions of Microsoft Office Word and introduce Powerpoint	
By the end of this unit, children should <b>know:</b> ( <i>substantive knowledge</i> )	By the end of this unit, children should <b>be able to:</b> ( <i>disciplinary knowledge and skills</i> )
<ul style="list-style-type: none"> <li>• To know the main similarities and differences between each of the MS Office programmes Word, Powerpoint and Publisher</li> <li>• To understand when to use each programme and explain their choice</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to use all three programmes to create appropriate documents/files efficiently</li> <li>• Use the spelling and grammar checking tools to ensure their final pieces of work are correct</li> </ul>
Sticky Knowledge:	Vocabulary:
<ul style="list-style-type: none"> <li>• I can explain the main features of MS Office publishing tools</li> <li>• I can use the main features of each MS tool effectively</li> <li>• I can create documents and slideshows efficiently</li> <li>• I can explain when each type of MS tool should be used</li> </ul>	<b>Word Processing:</b> Creating and editing text-based documents. <b>Formatting:</b> Changing the appearance of text and documents. <b>Spell Check:</b> A feature that checks for spelling errors. <b>Grammar:</b> Checking for correct sentence structures and punctuations.
Word Processing/Touch Type Opportunities within the Unit:	Linked Learning Opportunities:
Prior learning to build on:	Future linked learning
Year 1 and 2 Microsoft Word Basic knowledge and skills unit Year 3 and 4 Powerpoint unit Year 5 Publisher unit	Using MS Office in KS3

**EYFS Computing Provision at St John's Penistone**



Continuous provision

In EYFS at St John's, children are exposed to the strands of Computing within continuous provision in order to spark children's interests and provide them with a range of experiences in preparation for learning in the national curriculum. A range of resources are provided within each classroom, such as iPads, Beebots, interactive whiteboards, electrical toys, computers and laptops to expose EYFS children to elements of computing as they embark on a journey of discovery and exploration. Within the classroom, children are exposed to QR codes which can be accessed independently through iPads to listen to stories and songs. Equipment such as Beebots are also incorporated into other areas of play where programming skills are gained in order to direct the toy. Within the creative area, children have opportunities to use the interactive whiteboard to play games that enhance their learning throughout the curriculum.

Teacher led learning

Throughout the year, we provide planned and teacher-led activities that link to learning across the strands of Computing. Within each area of learning children will be exposed to curriculum-based skills through play. Each area will have a provocation, adult enhanced provision and materials to extend their learning, all running alongside our continuous provision. Links to other areas of the curriculum are also made where possible such as listening to music and learning a song as part of our Remembrance project in Autumn 2.

Computing

Although not explicitly taught, children are exposed to various elements computing in order to develop their understanding of how it is used in the wider world. Children learn about Online safety within their Summer 2 unit 'Fun at the Seaside' where they learn how to care for themselves and others. (Keeping healthy, keeping safe) PSED: Building Relationships. Computing learning is also taught within the Early Learning Goal 'Investigate To investigate and ask questions about the world around them' to show curiosity and awe when asking questions about the world around them.

Digital Literacy	Information Technology	Computer Science
<i>Possible learning opportunities and assessment statements seen in EYFS provision throughout the year:</i>		
<ul style="list-style-type: none"> <li>• I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset.</li> <li>• I can explain how this could be either in real life or online.</li> </ul>	<ul style="list-style-type: none"> <li>• I can play on a touch screen game and use computers/keyboards/mouse in role play</li> <li>• I can type letters with increasing confidence using a keyboard and tablet.</li> <li>• I can dictate short, clear sentences into a digital device.</li> </ul>	<ul style="list-style-type: none"> <li>• I can follow simple oral algorithms</li> <li>• I can spot simple patterns</li> <li>• I can sequence simple familiar tasks</li> <li>• I can use a mouse, touch screen or appropriate access device to target and select options on screen</li> </ul>



<ul style="list-style-type: none"><li>• I can recognise some ways in which the internet can be used to communicate.</li><li>• I can give examples of how I (might) use technology to communicate with people I know.</li><li>• I can identify ways that I can put information on the internet.</li><li>• I can describe ways that some people can be unkind online.</li><li>• I can offer examples of how this can make others feel.</li><li>• I can talk about how I can use the internet to find things out.</li><li>• I can identify devices I could use to access information on the internet</li><li>• I can give simple examples of how to find information (e.g. search engine, voice activated searching).</li><li>• I can identify rules that help keep us safe and healthy in and beyond the home when using technology.</li><li>• I can give some simple examples.</li><li>• I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).</li><li>• I can describe the people I can trust and can share this with; I can explain why I can trust them.</li><li>• I know that work I create belongs to me.</li><li>• I can name my work so that others know it belongs to me.</li></ul>	<ul style="list-style-type: none"><li>• I can identify a chart.</li><li>• I can sort physical objects, take a picture and discuss what I have done.</li><li>• I can present simple data on a digital device.</li><li>• I can record my voice over a picture.</li><li>• I can create a simple digital collage.</li><li>• I can move and resize images with my fingers or mouse.</li><li>• I can animate a simple image to speak in role</li><li>• I can create a simple animation to tell a story including more than one character.</li><li>• I know the difference between a photography and video.</li><li>• I can record a short film using the camera</li><li>• I can record and play a film</li><li>• I can watch films back</li><li>• I can take a photograph</li><li>• I can take a photograph and use it in an app</li><li>• I can use a painting app and explore the paint and brush tools</li><li>• I can scan a QR code.</li><li>• I can explore a 360 image.</li><li>• I can talk about AR objects in my class</li><li>• I can record sounds with different resources</li><li>• I can find ways to change your voice (tube, tin can, shouting to create an echo)</li><li>• I can record sounds/voices in storytelling and explanations</li></ul>	<ul style="list-style-type: none"><li>• I can input a simple sequence of commands to control a digital device with support (Bee Bot)</li></ul>
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## Teaching Safe Use of the Internet and ICT

Using technology and the internet safely is crucial which is why it is threaded throughout our computing curriculum as well as stand alone activities, such as Safer Internet Day/Week.

The main aspects of this approach include the following five SMART tips:

**Safe** - Staying safe involves being careful and not giving out your name, address, mobile phone no., school name or password to people online.

**Meeting** someone you meet in cyberspace can be dangerous. Only do so with your parents'/carers' permission and then when they are present.

**Accepting** e-mails or opening files from people you don't really know or trust can get you into trouble - they may contain viruses or nasty messages.

**Reliable** - someone online may be lying and not be who they say they are. If you feel uncomfortable when chatting or messaging end the conversation.

**Tell** your parent or carer if someone or something makes you feel uncomfortable or worried.

Learning opportunities are not just limited to the curriculum but also discussed and explored as new issues arise in society and the media. These are done on an age-appropriate level and in a variety of ways (including in class, assemblies, messages home).