COMPUTING PROGRESSION GRID

Intent: At Dorothy Barley Infant School we believe that a high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. We aim to cultivate a strong foundation in computing through our carefully planned and progressive sequence of learning. Our hands-on lessons inspire curiosity, creative thinking and digital literacy, preparing children for the dynamic digital world ahead, as well as equipping children with the skills and confidence to embrace future technological advancements responsibly. By the time they leave Dorothy Barley Infant School, children will have gained new knowledge and skills in the areas of: computing systems and networks, creating media, programming and data and information. They will be well prepared for the Computing curriculum at Key Stage Two and beyond.

SHINE:

S – Sparking curiosity
H – Hands on and active learning
I – Independence
N – New knowledge and skills
E – Empowering experiences

SMSC:

S – Spiritual
M – Moral
S – Social
C – Cultural

KEY VOCABULARY

EYFS

Programming
events
instruction
first
next
then

Creating Media
touch
button
photo
tools

Data and Information
same
different
sort

Computing Systems and Networks
computer
tablet
screen

YEAR 1

Programming
robot
program
command
outcome
sequence
sprite
blocks
algorithm

Creating Media
digital painting
shape tool
line tool
brush tool
text
bold
italic
underline
font
backspace

Data and Information
group
label
sort
property
compare
object

Computing Systems and Networks
track pad
mouse
keyboard
safety
device

YEAR 2

Programming
debug
algorithm
predict
code
sequences
blocks
design
modify

Creating Media
photograph
image editing
adjust tool
lighting

Data and Information
format
attribute
tally chart
pictogram
data

Computing Systems and Networks
information technology
online safety
scanner
barcode
device

EYFS	YEAR 1	YEAR 2
	Programming	
Sequence the events in a story Sequence a journey Create a set of simple instructions for a real life task Give a series of directions to move a character through a real life obstacle course Use simple positional and directional language	Explain what a given command will do Combine 'forwards' and 'backwards' commands to make a sequence Combine four direction commands to make sequences Plan a simple program Find more than one solution to a problem Choose a command for a given purpose Show that a series of commands can be joined together Identify the effect of changing a value Explain that each sprite has its own instructions Use algorithms to create a program	Describe a series of instructions as a sequence Explain what happens when we change the order of instructions Use logical reasoning to predict the outcome of a program Explain that programming projects can have code Design an algorithm Create and debug a programme that I have written Explain that a sequence of commands has a start Explain that a sequence of commands has an outcome Create a program using a given design Change a given design Create a program using my own design Build sequences of blocks to match my design Decide how my project can be improved, including by adding features and debugging the program
	Creating Media	
Use a tablet to take a photograph by pressing the button Use the interactive screen to explore digital drawing and painting Explore tools available in digital drawing and painting software	Use a computer to paint a picture Describe what different tools in digital painting software do Use the shape tool and the line tools Change the colour and brush sizes Make careful choices when painting a digital picture Use a computer to write, identifying and finding keys on a keyboard Use letter, number, space and backspace keys Add and remove text on a computer	Use a digital device to take a photograph Take photos in both landscape and portrait orientation Decide how photographs can be improved, including experimenting with light sources Improve a photography by retaking it Use tools to change an image Use a tool to achieve a desired effect Recognise that photos can be changed Identify which photos are real and which have been changed

	Identify that the look of text can be changed on a computer Edit text using bold, italic and underline, as well as by selecting text and changing the font	
Data and Information		
Sort objects by different criteria, including by colour and size Recognise similarities and differences between myself and other people Group animals by different criteria	Label objects and match objects to groups Describe objects in different ways Groups similar objects together and group in more than one way Compare groups of objects Answer questions about groups of objects	Recognise that we can count and compare objects using tally charts Recognise that objects can be represented as pictures Use a computer to view data in different formats Use software to create a pictogram Select objects by attribute and make comparisons Answer more than/less than and most/least questions about an attribute Explain how we can present information using a computer Give simple examples of why information should not be shared
Computing Systems and Networks		
Find examples of technology in our environment Discuss how I use technology at home Interact with technology in the provision in an appropriate way, for example by touching the screen	Understand rules for using technology responsibly Identify examples of technology Identify a computer and its main parts Use a mouse/track pad in different ways Use a keyboard to type on a computer Use a keyboard to edit text	Explain how to use information technology safely Recognise that choices are made when using information technology Recognise the uses and features of information technology Identify the uses of information technology in the school Identify information technology beyond school Explain how information technology helps us Demonstrate how information technology devices work together

Assessment

Key Enquiry: Big Questions

Nursery	Year 1	Year 2
Can we sequence the events in a story? Can we sequence a journey? Can we sequence the life cycle of a caterpillar? Can we create a set of instructions for making bread? How can we take a photograph? **Reception** How do we use technology? What are the different parts of a computer? Can we sequence the events of Mr Gumpy's journey? Can we direct the baby monkey to his Mum? Can we give Little Red Riding Hood instructions to travel through the forest safely? Can we create a set of instructions for how to build a house?	**Computing Systems and Networks** How can we use a computer? **Programming** How can we program a Bee-Bot to follow a set of instructions? How can we move a character? **Creating Media** How can we create our own digital painting? How can we add and edit text? **Data and Information** What can we use to group and sort information?	**Computing Systems and Networks** How does technology benefit society? **Programming** How can we debug programs that control a Bee-Bot? How can we create an interactive quiz? **Creating Media** How can we take and edit digital photographs? **Data and Information** How can we organise and present data using charts?