Computing Curriculum Overview - Year Two   **Computing Lead – Mr A Best**

Term	Topic	Subject Specific Vocabulary	Knowledge and Skills Children will be able to:
Autumn 1	Computing systems and network- Information Technology around us	Information technology (IT), computer, computer, barcode, scanner/scan.	• identify examples of computers. • describe some uses of computers. • identify that a computer is a part of information technology. • identify information technology in the home. • explain the purpose of information technology in the home. • open a file. • move and resize images. • find examples of information technology. • talk about uses of information technology. • compare types of information technology. • demonstrate how information technology is used in a shop. • recognise that information technology can be connected. • explain how information technology helps people. • list different uses of information technology. • recognise how to use information technology responsibly. • say how those rules/guides help us. • identify the choices that are made when using information technology. • explain simple guidance for using information technology in different environments and settings.
Autumn 2	Creating media- Digital picture	Device, camera, photograph, capture, image, digital, Landscape, portrait, framing, subject, compose, Light sources, flash, focus, background, editing, filter, format, framing, lighting, focus.	• recognise what devices can be used to take photographs. • explain what to do to capture a digital photo. • explain the process of taking a good photograph. • take photos in both landscape and portrait format. • explain why a photo looks better in portrait or landscape format. • improve a photograph by retaking it. • explore the effect that light has on a photo. • experiment with different light sources. • explain why a picture may be unclear. • recognise that images can be changed. • use a tool to achieve a desired effect. • apply a range of photography skills to capture a photo. • recognise which photos have been changed. • identify which photos are real and which have been changed.
Spring 1	Making Music	Open, edit, reopen save, images, sounds	• play an instrument following a rhythm pattern. • connect images with sounds. • use a computer to experiment with pitch and duration.

			• relate an idea to a piece of music.
			• use a computer to create a musical pattern using three notes.
			• refine musical pattern on a computer.
			• describe an animal using sounds.
			• save work.
			• reopen work.
			• explain to improve work.
Spring 2	Pictograms	Organise, data, enter, attribute, sharing.	• enter data onto a computer.
			• use a computer to view data in a different format.
			• use pictograms to answer simple questions about objects.
			• use a tally chart to create a pictogram.
			• explain what the pictogram shows.
			• tally objects using a common attribute.
			• create a pictogram to arrange objects by an attribute.
			• answer 'more than'/'less than' and 'most/least' questions about an attribute.
			• choose a suitable attribute to compare people.
			• collect data needed.
			• create a pictogram and draw conclusions from it.
			• use a computer program to present information in different ways.
			• share what I have found out using a computer.
			• give simple examples of why information should not be shared.
Summer 1	Programming A- Robot Algorithms	Instruction, sequence, clear, unambiguous, algorithm, program, order, commands, prediction, route, mat, Debugging	• give clear and unambiguous instructions.
			• create different algorithms for a range of sequences (using the same commands).
			• use an algorithm to program a sequence on a floor robot.
			• show the difference in outcomes between two sequences that consist of the same commands.
			• follow a sequence.
			• predict the outcome of a sequence.
			• compare prediction to the program outcome .
			• explain the choices made for a mat design.
			• identify different routes around the mat.
			• test the mat to make sure that it is usable.
			• explain what the algorithm should achieve.
			• create an algorithm to meet the goal.
			• use algorithm to create a program.
			• plan algorithms for different parts of a task.
			• test and debug each part of the program.
			• put together the different parts of the program.

Summer 2	Year 2 - Programming B – Programming Quizzes	Sequence, command, program, run, start, outcome, predict, blocks, sprite, algorithm, sequence, actions, design, project, modify, change, build, match, compare, debug, features, evaluate	• identify the start of a sequence • identify that a program needs to be started. • show how to run a program. • predict the outcome of a sequence of commands. • match two sequences with the same outcome. • change the outcome of a sequence of commands. • work out the actions of a sprite in an algorithm. • decide which blocks to use to meet the design. • build a sequence of blocks. • choose backgrounds for the design. • choose characters for the design. • create a program based on the new design. • choose the images for their own design. • create an algorithm. • build sequences of blocks to match their own design. • compare their project to their design. • improve project by adding features. • debug programs.